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BEYOND RECRIMINATION

PERSPECTIVES ON U.S. — TAIWAN TRADE TENSIONS

Jimmy W. Wheeler
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With contributions by:

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In 1984, Hudson moved its headquarters to Indianapolis, Indiana. Hudson also maintains offices in Alexandria, Virginia; Montreal, Canada; Brussels, Belgium; and Bonn, Federal Republic of Germany, and manages the Center for Naval Analyses in Alexandria, Virginia.

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PREFACE

This book examines the bilateral economic relationship between the United States and the Republic of China (Taiwan) and compares it to the United States' economic relations with Japan and the Republic of Korea (South Korea). In the process, it discusses the evolution and dynamics of the political relationships between the United States and these countries and conducts a comparative analysis of the current trade problems which have begun to generate considerable tension between them.

Taiwan is currently experiencing a large bilateral trade surplus with the United States; but it is not alone. In recent years, many countries have improved their bilateral trade balances with the United States and the overall U.S. trade balance has deteriorated markedly. Although such trade imbalances have largely been the result of American macroeconomic imbalances, America's trading partners are often blamed. Many of America's trading partners — especially the three Asian countries that are the focus of this study — have been criticized within the United States for following "unfair" trade and economic policies that contravene the spirit and, at times, the rules of international trade agreements. For their part, America's trade partners have occasionally responded hotly to such charges and to American pressure to change their policies. This study attempts to move beyond pointless recriminations in order to throw some light on the real causes of U.S.-Taiwan trade tensions and suggest concrete actions that could be taken to reduce them.

A comparative analysis of U.S.-Taiwan trade is the best means of achieving these goals for several reasons. First, through a comparative analysis, we can place recent U.S.-Taiwan trade tensions in the context of more general developments affecting the American economy and U.S. foreign trade. Second, the comparisons with Japan and South Korea highlight the similarities and differences in the United States' relations with these countries and, thereby, enhance the understanding of Taiwan's unique relationship with the United States. And third, a comparative framework also permits the bilateral relationship to be assessed in the context of the multilateral trading system, within which the actions of third parties (e.g., Japan) can have important direct and indirect effects on U.S.-Taiwan trade.

Chapter One provides a brief assessment of the sources of protectionist pressures within the United States. It examines some of the domestic economic difficulties that have contributed to the deterioration of the United States' trade and current account balances. Chapter One also addresses the reasons why bilateral solutions to trade conflicts are becoming increasingly predominant over the more traditional multilateral approaches to conflict resolution in international trade. In addition, the chapter also discusses why the Pacific countries — most notably Japan, South Korea, and Taiwan — have become so prominent in the American trade debate. Chapter Two then offers a brief comparative overview of the Japanese, South Korean, and Taiwanese economies. The similarities and differences among these three countries are highlighted in order to establish a basis for considering the manner in which their specific economic structures, trade policies, and industrial policies have influenced their bilateral trading relations with the United States. The following chapters on Japan and South Korea examine in some detail the issues introduced in Chapter Two. It should be emphasized, however, that neither of these chapters is intended as a comprehensive investigation of the complex relationships that the United States has developed with Japan and South Korea. Both chapters are intended simply to provide some comparative perspective on U.S.-Taiwan relations. The chapter on Taiwan then specifically picks up the various threads identified in the preceding chapters for a quite detailed investigation of U.S.-Taiwan economic relations. The domestic economic and political constraints and influences on Taiwan's trade patterns are discussed; the role of other countries, such as Japan, examined; and comparisons made between the Taiwanese and South Korean economies. A brief quantitative analysis of the causes of Taiwan's trade surplus with the United States is also presented. The chapter concludes with an assessment of the policy options and corrections that both the U.S. government and the Taiwanese government must consider. The concluding chapter has a somewhat unusual structure since it was deliberately written to serve both as a stand alone summary of the book and as a presentation of the conclusions to the analysis. Accordingly, the chapter begins with a summary of the issues examined and then, building on this summary restatement, presents broad policy options for reducing U.S.-Taiwan trade tensions.

This study is one of a variety of Hudson Institute studies focused on the political economy of economic growth in both developing nations and advanced industrial states. It has been made possible through the financial assistance of Lee and Li, a Taipei-based law firm, and the Hudson Institute. We would like to express our thanks to Lee and Li for their support.

Significant contributions were made by Merit E. Janow, Adjunct Fellow, Hudson Institute, and Maurice Ernst, Vice President, Hudson Institute. Both Ms. Janow and Dr. Ernst offered valuable criticisms of the document and assisted the authors in making extensive revisions. Moreover, Ms. Janow participated extensively in the initial conceptualization and planning stages of the research.

At the beginning of the project, in January 1986, it was decided that the study would be greatly enhanced by the participation and review of outside experts. Accordingly, we invited several individuals with very different backgrounds and areas of expertise to serve on an advisory board. These individuals included: Anthony Albrecht, Chairman, Corporate Program, Asia Society/Washington, D.C.; Professor Hungdah Chiu, University of Maryland School of Law; Merit E. Janow; William Morell, President, U.S.A.-R.O.C. Economic Council; and Dr. Robert Wade, Economist, World Bank. We would like to thank them for their generous support and their willingness to spend many hours reviewing and critiquing the research. The quality of the research was greatly enhanced by their active participation on the advisory board. At the same time, none of the research nor its conclusions can be attributed to the advisory board. Some members will doubtless disagree with our conclusions on certain issues.

In addition, we would like to thank the following people for their assistance: Catherine Albrecht, who drafted parts of the early concept papers for the study; Professor Karl O'Lessker, Indiana University School of Public and Environmental Affairs, who read and commented on the entire manuscript; Ernest Schneider who provided his editorial assistance; and Deborah Pickett and Laura Hudnut who spent long hours collecting data, making tables and charts, and doing other research tasks. We would especially like to thank Karen Whitehouse, who, with great skill and patience, coordinated the preparation of the document for publication with the invalu-

able assistance of Valerie Prater, Teresa Hyatt-Goens, and Sally J. Feeney. All of them had to endure endless revisions and modifications, which frequently required a commitment above and beyond the call of duty.

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Perry L. Wood

I. THE POLITICAL AND ECONOMIC CONTEXT OF THE U.S. TRADE POLICY DEBATE WITH JAPAN, SOUTH KOREA, AND TAIWAN

A. Introduction

The recent trade policy debate in the United States has tended to group the Republic of China (Taiwan) together with other successful developing countries in the Asia-Pacific region, labeling them collectively as the "new Japans." This phrase reflects American expectations of continued rapid economic growth in these Asia-Pacific countries, as well as of their continued use of targeted trade and economic policies to achieve that development. In view of large U.S. trade deficits with Japan, and now also with the Republic of Korea (South Korea) and Taiwan, these countries all have become the focus of protectionist pressures within the United States. Relatively little attention has been paid in the trade policy debate to the marked differences that exist among these countries with respect to their patterns of economic development and, correspondingly, their economic relations with the United States. In the current policy environment, in which the United States has drifted away from its earlier post-World War II multilateralism, the lack of a firm understanding of the salient characteristics of the respective bilateral relationships is a serious handicap for policymakers. A failure to differentiate among these countries in U.S. trade policy masks important differences among the three countries in their openness to foreign investment and imports, as well as in the pace and direction of the changes that are occurring in each of them.

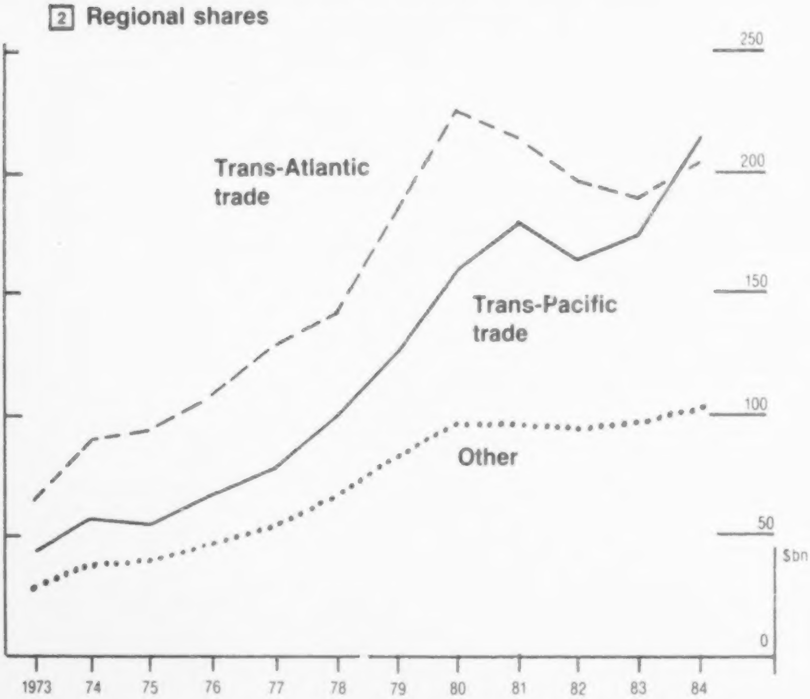
This study analyzes and compares the United States' bilateral economic relations with Taiwan to the United States' relations with Japan and South Korea. The general goal of this analysis is to identify in some detail the specific problems and opportunities that each country offers for U.S. firms and U.S. policy and thereby suggest both short- and long-term policy options to improve the bilateral relationships. The remainder of this chapter provides a broad economic and political context for U.S. trade problems with Japan, South Korea, and Taiwan. Chapter two, in turn, offers a brief comparative sketch of the three countries' economies and economic policies that, with the material in chapter one, identifies some of the key trends, similarities, and differences that lie behind their growing trade tensions with the United States. The subsequent country chapters pursue these issues further and assess how such trends are likely to influence each country's relationship with the United States. The final chapter builds on the country-specific analyses to draw implications for the U.S.-Taiwan bilateral relationship and presents a range of policy options that both governments might usefully pursue.

B. The Context of the U.S. Trade Policy Debate

Several key changes have occurred in U.S. trade since the early 1970s. First, imports have increased substantially as a share of Gross National Product (GNP) in real terms. Second, the United States has come to rely significantly on the LDCs (Less Developed Countries or Third World) for imports and as export markets. Recently, however, debt constraints and other adjustment pressures have led many LDCs, especially those in Latin America, to conserve foreign exchange by restricting imports and promoting exports — which has led to an increase in U.S. imports and a decrease in U.S. exports to these markets. Third, and of great political importance, there has been a significant shift in trade from the Atlantic region to the Pacific region (Figure 1-1). While trade with the Atlantic region has increased only slowly, Pacific trade has expanded rapidly, with the growth of U.S. imports greatly exceeding that of U.S. exports.

Figure 1-1

SHIFT OF WORLD TRADE TO THE PACIFIC
(Billions of US Dollars)



Source: *The Economist*, November 30, 1985, p. 67.

Indeed, since the early 1970s, Japan and the "four tigers" — Hong Kong, South Korea, Singapore, and Taiwan — have shown exceptional economic dynamism. The Gross Domestic Product (GDP) growth rates of Japan, South Korea, and Taiwan have been nearly double the world average, greatly increasing the importance of the Asia-Pacific region as a center of world economic wealth and activity (Table 1-1). In 1962, the Western Pacific accounted for approximately 9 percent of world GNP; twenty years later, its share had risen to more than 15 percent, and by the year 2000 it may well account for around one-quarter of Gross World Product.[1] Similarly, per capita GNP in Japan went from 54 percent of the average for advanced industrial countries in 1962 to 93 percent by 1984. In turn, Taiwan and South Korea's per capita GNPs which were only about 10 percent of the average for industrialized market economies in 1962, had reached respectively 26.6 percent and 18.5 percent of the average by 1984.[2]

The region's dynamic growth has been accompanied by a rapid increase in trade between the Asia-Pacific region and the rest of the world. In 1962, Japan exported 3.9 percent of total world exports, while importing 1.5 percent of total world imports. By 1985, Japan accounted for 10 percent of total world exports and 7 percent of total world imports. Excluding Japan and the Peoples Republic of China (P.R.C.), the rest of Northeast Asia was responsible for only 0.7 percent of world exports and 1.5 percent of world imports in 1962. By 1985, Taiwan alone was responsible for 1.7 percent of world exports and 1.1 percent of world imports; South Korean trade accounted for 1.6 percent of both world exports and world imports.[3]

Table 1-1
ECONOMIC GROWTH, 1965-1985
(Average Annual Growth of GDP)

Country Group	1965-1973	1973-1980	1980-1985
Industrial Countries	4.7	2.8	3.5
Developing Countries	6.6	5.4	3.4
Low-Income Countries	5.6	4.7	7.0
Middle-Income Oil Importers	7.0	5.5	2.2
Middle-Income Oil Exporters	7.1	5.8	2.6
China, Republic of	11.0	8.3	6.0
Korea, Republic of	10.0	7.2	7.5
Japan	9.8	4.3	3.9

Sources: The World Bank, *World Development Report, 1986*, p. 155; OECD, *Quarterly National Accounts*, November 3, 1986, p. 49; The Bank of Korea, *Monthly Bulletin*, No. 40, 1986, p. 126.

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[1] Peter Drysdale, "The Pacific Basin and Its Economic Vitality," in *The Pacific Basin: New Challenges for the United States*, ed. James W. Morley. The Proceedings of the Academy of Political Science, Vol. 36, No. 1 (1986), p. 11.

[2] Ibid., p. 12. World Bank, *World Development Report 1986*; and Council for Economic Planning and Development, R.O.C., *Taiwan Statistical Data Book 1985*.

[3] In comparison, of the two largest trading nations in the world, the United States accounted for 11.9 percent of world exports and 19.1 percent of world imports, while West Germany accounted for 10.2 percent of world exports and 8.4 percent of world imports. Drysdale, op. cit., p. 13; International Monetary Fund, *Direction of Trade Statistics Yearbook 1986*; and Department of Statistics, Ministry of Finance, R.O.C., *Monthly Statistics of Exports and Imports. The Republic of China*, April 1986, No. 200 (June 20, 1986).

The growing importance of these countries in international trade understates their increased importance to the United States. In 1985, Japan was the United States' second largest trading partner (behind Canada), Taiwan was sixth and South Korea seventh. Among developing countries, Taiwan and South Korea ranked second and third, respectively, behind Mexico.[4] All three countries rely heavily on foreign trade, especially on exports to the United States, and each has a large trade surplus with the United States.

U.S. firms were ill-equipped to adjust to this new, escalating competition from the Asia-Pacific Region. U.S. firms have found it difficult to sell goods to the Asia-Pacific countries, in part because of government and industry barriers to foreign investment and imports in such areas as agriculture, the heavy and chemical industries, high technology goods, and service industries. Japan's opaque bureaucratic procedures, and real and imagined barriers to market entry, coupled with American unfamiliarity with Japanese practices, have constrained American participation in the Japanese market. South Korea, for its part, has used discretionary import licensing procedures, export subsidies, and high overall tariff rates to restrict competition from foreign manufacturers. It has also imposed barriers to services and, until very recently, has delayed action to correct infringements on intellectual property rights. Of the three countries in this study, Taiwan's market is probably the most open to foreign participation. Nonetheless, Taiwan maintains *inter alia* high tariffs in certain sectors, artificially high customs valuation schedules, and barriers to trade in services. Although American firms have begun to adjust to these new sources of competition, the rapid penetration of the United States' markets by countries in the Asia-Pacific region, the frustrations of American exporters, and massive trade deficits have placed enormous political pressure on U.S. policymakers to reduce competition from the region and to open those markets to American exports.

Not surprisingly, foreign trade has emerged in recent years as a central concern in American political discussion. Even in the best of times, public opinion in the United States tends to have an inward-looking and sometimes protectionist orientation, and now is not the best of times. The growing political profile of trade issues is evidenced both by the number of trade-related bills introduced in the U.S. Congress and by Reagan administration statements emphasizing the importance of a free and "fair" world trading system. Congress is especially subject to pressures to protect specific economic interests and, arguably, has become even more susceptible to such pressures recently, as authority over trade matters has been dispersed among congressional committees.

In this environment, U.S. policymakers have been grappling with the problems of defining and negotiating a system of both free *and* fair trade. According to one commentator, free trade has been redefined in the context of a world dominated by "interventionist governments, which have been able to create a comparative advantage by subsidizing production, managing growth, and restricting competition."[5] Other countries are accused of exporting the costs of their economic adjustments to the United States and of not accepting their share of the responsibility for maintaining an open international system. Some of these charges are valid, others are not, but, as the rest of the world has become much more competitive, issues that had been long overlooked by American business leaders and policymakers can be ignored no longer. In this context, the U.S. domestic trade policy debate has become more acrimonious, and U.S. policy has increasingly used bilateral negotiations and agreements to resolve specific problems.

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[4] U.S. Department of Commerce, International Trade Administration, *United States Trade: Performance in 1985 and Outlook* (October 1986).

[5] John Heinz, "The United States and the New International Economy: Facing the World as It Is," *SAIS Review* (1986), p. 13.

In fact, many countries, not only Japan, South Korea, and Taiwan, have improved their bilateral trade balances with the United States in recent years (Table 1-2). In 1985,

Table 1-2
U.S. BILATERAL TRADE SURPLUSES AND DEFICITS, 1983-85
BY TOP 25 COUNTRIES IN 1985
(Domestic and Foreign Exports, f.a.s.; General Imports, c.i.f.)
(Millions of US Dollars)

	Trade Surplus[1]				Trade Deficit[2]		
	1983	1984	1985		1983	1984	1985
Netherlands	4,619	3,225	2,901	Japan	21,665	36,796	49,749
Saudi Arabia	4,063	1,556	2,447	Canada	14,302	20,387	22,176
Australia	1,532	1,894	2,372	Taiwan	7,443	11,085	13,061
Egypt	2,488	2,522	2,239	Germany, W.	4,492	8,726	12,182
USSR	1,628	2,684	1,980	Hong Kong	4,261	5,836	6,208
Bel./Lux.	2,539	2,014	1,351	Mexico	7,937	6,275	5,757
Pakistan	629	825	743	Italy	1,912	4,129	5,756
Turkey	447	785	649	Brazil	2,824	5,633	5,007
Ireland	533	480	400	Korea, South	1,732	4,045	4,756
Israel	717	385	379	U.K.	2,279	2,835	4,300
Jordan	431	294	363	Indonesia	4,191	4,651	4,138
Kuwait	602	355	353	France	346	2,480	3,864
Libya	190	190	264	Venezuela	2,361	3,443	3,431
Bermuda	174	217	251	Nigeria	3,019	2,029	2,432
Tunisia	182	402	243	Sweden	967	1,884	2,414
Morocco	405	487	235	Algeria	3,221	3,250	1,996
Sudan	136	114	234	Ecuador	922	1,149	1,385
Panama	370	392	208	Switzerland	−409	637	1,291
Ethiopia	−51	85	157	Denmark	477	913	1,091
Bahamas	−1,294	−663	134	South Africa	−31	312	975
Lebanon	467	278	121	Angola	857	950	957
Jamaica	145	80	112	Philippines	352	856	955
Oman	−199	−2	110	Singapore	−790	446	937
Syria	103	102	103	Malaysia	521	369	860

Notes: 1) Negative sign indicates a trade deficit. 2) Negative sign indicates a trade surplus.

Source: U.S. Department of Commerce, International Trade Administration, *United States Trade: Performance in 1985 and Outlook* (October 1986), p. 118.

although Japan was the largest contributor to the U.S. trade deficit, Taiwan third, and South Korea ninth, many other countries also posted large bilateral surpluses with the United States. Since bilateral trade trends are similar among most of the United States' trading partners, a strong presumption exists that the United States' difficulties are due more to a fundamental macroeconomic disequilibrium than a series of specific bilateral problems. Nevertheless, the relatively rapid rise of Japan, South Korea, and Taiwan as major U.S. trading partners has led U.S. politicians and policymakers to pay excessive attention to their role in contributing to the growing trade deficit.

C. Sources of the U.S. Trade Deficit

The decline in the United States' share of world manufactured exports and growing import penetration of the U.S. market in a wide range of industries have given credence to the view that the United States may be losing its ability to compete on international markets.[6] A heated debate has developed over whether the United States' competitive position has deteriorated. A related debate is whether the United States is "deindustrializing" as the domestic economic structure shifts from producing manufactures into services, as the share of services in U.S. employment and output rises, as investment in productive capacity lags, and as more U.S. firms choose to manufacture overseas.[7] The lack of consensus among professional analysts regarding these issues has contributed to uncertainty and a lack of focus in policymaking.

The causes of the U.S. trade deficit are extremely complex. They include the relatively slow growth of labor productivity in the United States, the greater relative openness of the U.S. economy to imports, and the widespread use of the U.S. dollar as a refuge for foreign capital in an uncertain world environment. Since 1982, other influences have also come into play, including more rapid economic growth in the United States than in most of the other industrialized nations, depressed economic conditions in the Third World, and the persistence of an unexpectedly strong U.S. dollar exchange rate.[8] In particular, the strong dollar was a major factor in the dramatic increase in U.S. trade deficits since the early 1980s.

Behind many of these influences lie the more fundamental cause of the increased trade deficit — the severe imbalance in U.S. macroeconomic policy relative to that of its major trade partners. This imbalance is reflected in the massive U.S. fiscal deficit and the severe appreciation of the US dollar between 1981 and 1985. The recession of 1979-1982 was accompanied by a rapid appreciation of the dollar. And, contrary to expectations at the time, the dollar remained strong through the recovery. Huge budget deficits combined with private investment growth expanded demand more rapidly than could be met by domestic producers, particularly at the low import prices caused by the strong dollar. Trade and current account deficits became enormous. Normally this would have led to a weakening of the dollar, but the large budget deficits combined with restrictive monetary policies in the United States led to high real interest rates (once inflation had been brought under control). High real interest rates, in turn, attracted net capital inflows that more than offset the trade and current account deficits and kept the dollar strong — although more of the net capital flow was due to the reduction in capital outflow than the increase in inflow.

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[6] Bruce R. Scott defines competitiveness as "a nation-state's ability to produce, distribute, and service goods in the international economy in competition with goods and services produced in other countries, and to do so in a way that earns a rising standard of living." See Bruce R. Scott, "U.S. Competitiveness: Concepts, Performance, and Implications," in Bruce R. Scott and George C. Lodge, eds., *U.S. Competitiveness in the World Economy* (Boston: Harvard Business School, 1985), pp. 14-15. This definition is echoed by the President's Commission on Industrial Competitiveness, *Global Competition: The New Reality*, Vol. 2 (Washington, D.C.: U.S. Government Printing Office, January 1985), p. 6.

[7] A discussion of both the competitiveness and the deindustrialization issues can be found in Robert Z. Lawrence, *Can America Compete?* (Washington, D.C.: The Brookings Institution, 1984).

[8] With U.S. growth exceeding that of other industrial countries, the demand for consumer goods, capital goods, and investment funds could be satisfied more quickly by imports from other countries than by new capacity growth in the U.S., while other countries' demand for American exports remained sluggish. In addition, to conserve foreign exchange, debt-burdened LDCs restrained imports of American-made products.

The strong dollar had the positive consequences of holding inflation down and spurring foreign investment in the United States. It also had the psychological effect of boosting confidence in the American economy, since foreign funds were used to finance both the federal budget deficit and productive investments, while also helping to keep interest rates from rising even further. However, the negative consequences of the strong dollar eventually came to dominate economic considerations. Specifically, the increase in imports and decline in exports that resulted from the strong dollar were a major cause of the stagnation of U.S. manufacturing output and the decline in manufacturing employment during a period of fairly rapid overall economic growth. The strong dollar is estimated to have contributed as much as one-half of the trade deficit, by raising U.S. export prices (and comparative labor costs) and lowering import prices. The accompanying decline in exports is estimated to have accounted for 80 percent of the decline in U.S. manufacturing jobs between 1980 and 1984.[9]

The dollar began to decline in value in the first quarter of 1985. From October 1985 to October 1986 the value of the dollar depreciated 19 percent on a trade-weighted basis. The effects of a lower dollar on the trade balance will be felt only after a long lag. Without other major adjustments — including a reduction in the U.S. federal budget deficit, higher growth in Western Europe and Asia, and multilateral and bilateral trade policies that stop or reverse the trend of growing protectionism — a substantial trade deficit will remain. Some observers fear that the United States may already have permanently lost some of its export markets. Foreign suppliers clearly have replaced some domestic ones as some U.S. production was shifted overseas. Even with the recent depreciation in the US dollar, such market relationships will take a long time to change. Only if the value of the dollar remains competitive in real terms for an extended period will expectations change and adjustments be made.

Although the strong dollar combined with the more long-term economic factors mentioned earlier largely account for the widely observed decline in the long-term competitiveness of certain American industries over the past decade, the tendency is to blame the problems of American industry on "unfair" foreign competition. It is certainly true that foreign competition now challenges basic American industries such as steel, labor-intensive industries like textiles and apparel, more sophisticated industries such as automobiles and machine tools, and even such high-technology areas as the aerospace industry. Nevertheless, while some foreign producers have used "unfair" trading practices (such as subsidies), the contribution of such practices to the problems of U.S. industry is usually found to be minimal. Despite this fact, these foreign country practices have been a key factor in justifying a variety of protective U.S. policies in recent years. Not surprisingly, most protectionist responses have been of limited help to U.S. industry, since the underlying industry problems were usually not addressed.

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[9] Lester A. Davis, "Contribution of Exports to U.S. Employment," Staff Report, Trade Research Division, U.S. Department of Commerce (March 1986).

D. Japanese, South Korean, and Taiwanese Trade Policies

All three countries in this study are experiencing trade surpluses with the United States. Japan's surplus, in particular, has become a serious political liability. Both the United States and the smaller countries have criticized Japan for restricting its imports of manufactured goods. In response to U.S. pressure, Japan has undertaken several stages of trade liberalization. Tariffs have been reduced, the regulatory process has been made somewhat less opaque, and U.S. producers have been permitted to participate in the process of setting standards and certifying products for sale in Japan. The United States has suggested that Japan increase its domestic spending on, for example, infrastructure projects or housing, in order to reduce the pressures on domestic firms to export and to create a demand for imports. It has also urged Japan to absorb more imports of manufactured goods from less developed countries. Dramatic results do not appear to be forthcoming, however.

Competition from other Asian countries has prompted Japanese producers of textiles and apparel to request increased protection of their domestic markets in the form of voluntary export restraints (VERs). VERs against South Korean textiles were imposed from 1983 to 1986 and are due to be extended. Japanese producers have also requested restraints on imports from China, Pakistan, and Taiwan. Similarly, Japanese steel producers have sought protection from lower-cost South Korean exports. Competition in international markets has already forced Japan to begin restructuring a variety of basic industries, and macroeconomic and other forces are intensifying the pressures for change.

South Korean trade policy has been an integral component of its industrialization strategy. Tariffs are moderately high, averaging 20 percent, but are often less important barriers to imports than a variety of discretionary quantitative restrictions, fees, and special tariffs. Although domestic producers are well protected, the thrust of South Korean policy has been to promote economic growth through the efficient production of exports. Export incentives have been used mainly to compensate for distortions due to import protection, rather than to provide substantial net subsidies. The methods employed to promote exports include providing inexpensive export credit, exempting inputs of raw materials and components from tariffs, and accelerating tax depreciation of new plant and equipment. Import controls have seen a slow liberalization in recent years as political pressures from abroad — notably the United States — have become stronger. Nevertheless, producers of rice, steel, automobiles, and machinery are still heavily protected.

Taiwan relies less on domestic protection than South Korea, although its average nominal tariffs are higher. It regulates imports primarily through tariffs rather than quantitative restrictions and, consequently, employs less bureaucratic intervention than South Korea. Taiwan's trade policy has had a strong export orientation, providing access to inexpensive credit, tax benefits for exporters and tax rebates on imported inputs, but its policymakers traditionally have preferred market-oriented incentives to direct controls. As in South Korea and Japan, import barriers have been liberalized slowly in recent years, and further reductions are planned.

In all three countries, the moves toward economic liberalization have been accompanied by stiffening domestic resistance to the costs that such liberalization implies — this is especially the case in South Korea. The prospects for and constraints on further liberalization are critical aspects of current bilateral tensions and will be discussed in some detail below.

E. A Politicized Trade Policy Environment

Concern about the United States' trade in manufactures has focused both on deteriorating trade balances in particular sectors and on the practices of America's trade partners. As a result, the policy debate has shifted away from a multilateral approach to problem resolution towards bilateral solutions. Indeed, the Omnibus Tariff and Trade Act passed in 1984 gave the President broader authority to respond to "unfair" trade practices and enhanced the negotiating power of the administration to conclude bilateral trade agreements. The administration has reiterated its commitment to enforcing the rules of fair trade and promised to retaliate, if necessary, to enforce an open trading system. At the same time, however, it has rejected proposals to impose high tariffs on specific goods or to impose a surcharge on imports from countries with which the United States has an especially negative trade balance.[10] Congress has become frustrated with what is perceived as a lack of action by the President, and efforts are under way to limit his discretion (for example, by making countervailing duties automatic with a positive finding of material injury by the International Trade Commission (ITC) in cases where subsidies have been used by a U.S. trading partner).

The new Democratic majority in the House and Senate will lead to increased efforts in this direction. The Democrats' electoral gains were partly the result of concerns over farm and trade policies. Their leaders have already indicated that passing a new trade bill is one of their top priorities. Although the President remains committed to vetoing any bill he considers protectionist, a veto could well be overridden. Not only do the Democrats now have a ten seat majority in the Senate, but their gains have clearly put their Republican colleagues on notice for 1988. Former Senate majority leader Robert Dole has already indicated that a trade bill is likely to be passed by the new Congress. If the President wishes to limit the damage, he will have to get out in front on this issue with his own proposals, rather than try to stonewall his opponents.[11]

In its efforts to fend off congressional pressures to provide increased protection to domestic industries, the Reagan administration has attempted to shift the focus of the trade debate from the protection of the American market to the opening up of foreign markets to U.S. exports. Accordingly, the administration has strongly attacked existing trade barriers in Japan, South Korea, and Taiwan. Citing these barriers as important factors in the United States' enormous merchandise trade deficit, the administration has attempted to negotiate market opening arrangements with these countries.

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[10] The administration's handling of the textile and clothing industry highlights the mixed approach being pursued. The President vetoed the Jenkins Bill, while at the same time pursuing a hard line in the Multifiber Arrangement (MFA) negotiations, and then seeking tight bilateral limits on specific countries' textile and clothing exports under auspices of the new MFA agreement.

[11] The problem is complicated even further by budgetary concerns. The consensus that the budget deficit must be reduced, combined with the President's unwillingness to raise taxes, makes an adequate trade adjustment assistance program unlikely. Consequently, any trade bill passed will most likely be largely a protectionist response, rather than a creative attempt to address some of the real problems of economic adjustment that are implied by the trade deficit.

Needless to say, these countries are equally concerned about American barriers that restrict exports of their products to the United States. In 1982, for example, 42 percent of South Korea's exports were subject to quantitative restrictions in industrial country markets. The existence of such barriers weakens the ability of American negotiators to press for "free and fair" trade. This is a particular problem in South Korea where the opposition has made a *cause celebre* out of domestic liberalization and U.S. protectionism. Neither Taiwanese nor South Korean trade officials believe that the United States Congress has been sufficiently sensitive to their needs as developing countries. Both are concerned that they are being blamed for the "sins" of Japan. Japanese officials, in turn, often argue that the solution to America's trade problems lies more in a reform of American macro- and microeconomic policies, than in an attack on its trading partners.

Nevertheless, many Americans are convinced that the economic benefits of their trading relations with these Asian nations have been one-sided, and that the use of a stick (i.e., protectionism) is now required, since carrots have neither opened these countries' markets to American goods nor prevented them from using what are perceived as unfair trading practices. In many respects, the real causes of America's trade problems have become politically irrelevant.

America's Asian trade partners must be sensitive to the domestic political character of the debate, if they are to deal successfully with American pressures. In general, in dealing with the United States, Japan and South Korea are in a better political position than Taiwan. Although the United States sells military supplies to Taiwan and has stressed the importance it attaches to Taiwan's freedom from encroachments by the P.R.C., America's 1978 derecognition of Taiwan in favor of the mainland has made the United States' ties to the island more ambiguous than in the past. Furthermore, Taiwan's strategic significance has steadily declined since the Sino-Soviet split became generally recognized within the American government and as the U.S. military has significantly downgraded its assessment of the potential threat of the P.R.C. to American interests in the region. The deepening ties between the P.R.C. and the U.S. since derecognition have further weakened Taiwan's ability to influence American policymakers.

Both South Korea and Japan, on the other hand, are able to capitalize on their continuing political-strategic significance to the United States to moderate the political confrontation on trade issues. Forty-three thousand American troops are stationed in South Korea. They are there because a united Korea under North Korean control would pose a severe threat to Japan and the entire American position in the Far East. South Korean political stability is, therefore, a vital American interest. To the extent that the South Korean government can credibly link rapid trade liberalization to political instability, it can gain some support in the U.S. administration and even the U.S. Congress for a slower approach to domestic economic reform. Japan is the linchpin of American policy in the Pacific and an important counterweight to Soviet influence in the region. Japan has long been able to use its political and strategic importance to the U.S. to help forestall liberalization. The close ties between the two countries have made the United States reluctant to take harsher stands against Japan in the past.

Still, the situation is rapidly changing. The limited utility of old friendships and general strategic concerns when it comes to domestic political imperatives is shown by the current debate raging over Japan in the U.S. Congress. Although the administration remains reluctant to take strong steps — it praises Nakasone and Japan for every positive step taken, while holding out for more — Congress seems eager to escalate trade tensions. "Japan-bashing" has become some congressmen's favorite pastime. The smaller countries have also not been immune. Both South Korea and Taiwan are increasingly becoming the targets of protectionist pressures.

Despite the smaller size of its bilateral trade surplus with the United States, South Korea has typically received greater popular attention than Taiwan. In part, the greater public awareness of South Korea reflects the close ties between the U.S. and South Korea, as well as the aggressive marketing strategies of South Korean firms. In addition, because much of South Korea's production is centered in large firms producing final goods, new South Korean exports tend to have a larger direct impact on the U.S. market than Taiwanese goods. South Korean government officials of course, argue that their trading practices have been unfairly singled out for criticism. They believe that South Korea is suffering because of Japan's success in penetrating the U.S. market and that its serious debt and unemployment problems are being overlooked by American policymakers. Popular opinion is opposed to opening South Korea further to imports. Given the growing threat of internal opposition, the government is being forced to take public opinion into account in formulating policy. American efforts to pressure South Korea overtly to liberalize its trade regime are therefore likely to be counterproductive and may lead to further attacks on pro-liberal elements in the South Korean government. In order to raise these concerns, the South Korean government and South Korean firms have begun to lobby more actively in the United States.

Taiwan's greater dependence on the U.S. market and relatively more limited political influence than South Korea, makes the development of an effective liberalization program to meet American concerns even more imperative. Fortunately, Taiwan's commitment to the idea of a more open trading system has not met with such serious domestic opposition, although there is considerable disagreement over the pace at which it can occur and over which industries should be opened first. The conservatism of Taiwan's bureaucracy has also often blocked rapid and effective liberalization. With trade barriers remaining and a large bilateral trade surplus, Taiwan, like South Korea, fears that it will be caught in the protectionist conflicts the United States is waging against Japan. Taiwan has its own problems with exporting to Japan, however, and the nondiscriminatory liberalization of Taiwan's imports sought by the United States is seen by many on Taiwan as favoring Japanese rather than American firms. Some Taiwanese officials show a strong preference for bilateral over multilateral agreements with the United States as a less costly way to address American concerns. In general, Taiwanese policymakers have shown a greater awareness of the political overtones of trade policy than have the South Koreans. They have often in the past introduced reforms to gain political goodwill, which, although often only superficial, served to defuse tensions in the U.S.-Taiwan relationship. Like Japan and South Korea, Taiwan has also responded to U.S. protectionist pressures by increasing its efforts to influence American legislators. Its influence has been slipping, however, and, as the United States' trade and diplomatic relations with the P.R.C. expand, Taiwan's diplomatic isolation could well increase. In a relationship that has come to depend upon the mutual gains from economic interaction, the increasingly protectionist environment raises the danger that Taiwan's already reduced political influence will undermine its efforts to enhance the trading relationships that have become its political lifeline.

II. JAPAN, SOUTH KOREA, AND TAIWAN IN PERSPECTIVE

A. Introduction

The rapid rise of Japan, South Korea, and Taiwan to economic prominence has led to the impression in the United States that these nations are fundamentally similar in cultural traits, economic policies, and business practices, as well as having the same degree of dependence on exports as the "engines" of their economic growth. This popular view is simply wrong. Despite some similarities, these countries are more different from each other than they are alike.

For example, the differences in the degree of trade dependence, reflected in the share of exports in each nation's GDP, are quite striking. Taiwan is by far the most trade-dependent of the three countries, with exports constituting 57 percent of GDP, as compared with 37 percent for South Korea and 15 percent for Japan (each in 1984).[1] Despite Taiwan's relatively high per capita income (per capita GDP is approximately $3,000), its population (just 19 million) is too small for the domestic market to constitute a sufficient base for the development of most new industries on an efficient scale. This fact has had important consequences, not only for the role of foreign trade in Taiwan's economy, but also for its industrial structure and product mix. Taiwan also depends more heavily on the American market than either South Korea or Japan, and historically has run a chronic trade surplus with the United States, which has been offset by a chronic deficit with Japan. In recent years, of course, Taiwan's surplus with the United States has greatly outpaced its deficit with Japan. In 1986, Taiwanese authorities estimated that Taiwan's bilateral trade surplus with the U.S. was US $13.5 billion.[2] Taiwan's trade deficit with Japan was an estimated US $3.1 billion in 1986.

In contrast, South Korea, despite its lower per capita income (approximately $2,000), has been able, until recently, to use its relatively large domestic market (population 40 million) as a sheltered market base for its priority industries. Consequently, exports make up a significantly lower percentage of South Korean than Taiwanese GDP. South Korea's overall trade and current account balances usually have been in deficit, as have its bilateral trade balances with both the United States and Japan. The trade balance with the U.S. first shifted to surplus in 1982, but, by 1986, had reached US $7.1 billion, while in the same year South Korea's deficit with Japan was US $4.9 billion.[3]

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[1] World Bank, *World Development Report 1986*; Council for Economic Planning and Development, R.O.C., *Industry of Free China*, Vol. LXVI, No. 1 (July 1986).

[2] Julia Leung, "Taiwan Mixes Priorities in Finance Plans," *The Asian Wall Street Journal* (January 7, 1987). According to the U.S. Department of Commerce, Taiwan ran a US $15.7 billion bilateral trade surplus with the U.S. in 1986. Nancy Dunne, "U.S. Trade Hopes Rise as Deficit Declines by $5 bn in December," *Financial Times* (January 31, 1987), p. 3. U.S. and Taiwanese trade balance statistics differ, in part because the U.S. reports imports on a C.I.F. basis, while Taiwan reports its exports F.O.B. and vice versa. Time lags and handling of transhipments also affect these values.

[3] Nancy Dunne, op. cit.

Japan's large domestic economy (population 120 million and per capita income $9,700) has enabled it to depend on its domestic market as the primary engine for economic growth. Despite the absence of a domestic resource base, Japan has run trade and current account surpluses since the mid-1960s (except immediately following the sharp oil price rises in 1973-74 and 1979-80), and a large, but volatile, long-term capital outflow has been the norm since the early 1970s. Japan has run a trade surplus with the United States for most of this period, but this bilateral surplus has increased greatly in recent years, reaching US $58.6 billion in 1986.[4]

Even these general indicators suggest that the economies of Japan, South Korea, and Taiwan are quite different and reflect substantial differences in social objectives, economic structures, government policies, business practices, and domestic political concerns. Of course, Japan is often cited as a model of development that is perhaps especially relevant for the Pacific Basin economies. Many in the region, in fact, view Japan as a source of inspiration because of its relatively recent and highly successful development drive, but each country has drawn its own conclusions about the specific lessons that Japan's experiences have to offer. While many South Korean government officials and business executives seem to view themselves as emulating Japan's general pattern and direction of economic development, their Chinese counterparts on Taiwan more often stress a vision of Taiwan as an Asian Switzerland — i.e., attaining a high standard of living without becoming an industrial giant.[5] Arguably, the goal of South Korean government officials and business executives is to develop South Korea into a rich and powerful nation that will become a presence on the world stage, while in Taiwan, the focus is more on broadly distributed wealth creation and the maintenance of sufficient national strength to counterbalance the P.R.C. Taiwan's oft-stated goal is growth with stability. These overall economic priorities are reflected in the distinctive development strategies followed in each of the countries examined. A brief overview of these strategies is provided below, in order to highlight some of the major issues that will be pursued throughout the study. Each [illegible] the following chapters explores these issues in greater detail.

B. Industrial Development Strategies

1. Japan

For more than a decade following World War II, the Japanese government's basic approach to economic growth was to identify and then provide support to priority industries. Selective access to credit and to foreign exchange for imports were among the strongest policy instruments used to achieve the overall objective of building an industrial base that could compete in international markets. Firms in the priority industries were encouraged by the government to compete intensely among themselves, but were shielded from foreign competition in the domestic market. These enterprises were urged to concentrate in selected product lines in the protected domestic market first, moving to export only after developing economies of scale at home.[6]

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[4] Ibid.

[5] For example, Kum Jin-Ho, South Korea's Minister of Trade and Industry, has stated: "Nobody calls Taiwan the 'Second Japan'. . . . We're confident that Korea will be far ahead of Taiwan in the near future. Korea will be growing like Japan was." Quotation: Maria Shao and James R. Schiffman, "Two Nations Follow Two Paths to Riches," *The Asian Wall Street Journal* (April 7, 1986).

This selective targeting of priority industries and firms was only part of a government policy framework that also emphasized a strong reliance on market forces and private decisionmaking, while maintaining low levels of inflation and a positive growth environment. These policies doubtless contributed to a high domestic savings rate and high levels of investment in plant and equipment, thereby rapidly raising productive capacity and strengthening the international competitiveness of Japanese products.

Bullish investment policies, however, required firms steadily to increase borrowing, leading to rapid debt growth and a decline in the proportion of equity in their capital structure.[7] Inevitably, the heavy borrowing also led to an increase in firms' fixed costs as finance costs and depreciation expenses rose as a proportion of sales. When combined with the well-known Japanese employment practices, such high fixed costs made Japanese companies extremely growth dependent. But, by the early 1970s, the double-digit growth that had characterized the 1950s and 1960s began to slow down. The combination of the first revaluation of the yen in 1971 and the 1973 oil crisis weakened the favorable international economic environment for rapid trade expansion that had supported Japan's domestic economic dynamism. Moreover, domestic sources of growth also weakened. In particular, by the mid-1970s, the dynamic growth opportunities offered by Japan's drive to catch up technologically with the other industrial nations declined substantially compared to the 1950s and 1960s — in many respects, Japan had caught up with the other industrial countries. By the 1980s, Japan clearly had become an advanced industrial country, which has brought corresponding changes in Japanese government policies.[8]

Over the years, many of the detailed controls over the economy, such as extensive foreign exchange controls and detailed tax and financial supports to specific industries or firms, became obsolete as the infant industries they were designed to support succeeded in establishing a competitive position in world markets. Not surprisingly, pressures for change from Japan's trading partners also became increasingly strong. Today, Japanese policymakers have lost many of the levers they previously used to influence private decisionmaking, and companies have become more resistant to government direction and influence.[9] Indeed, depressed domestic investment demand combined with large current account surpluses have given Japanese banks and corporations large financial reserves. These reserves have made them less dependent upon the

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[6] "New Japanese products were rarely developed exclusively for export. . . . In most cases a domestic market was developed first, giving producers long production runs through which they could achieve the economies of scale that enabled such goods subsequently to be exported at highly competitive prices. . . . This pattern of industrial development (and attendant policies supporting the development of basic manufacturing industries) continued without interruption until 1965, when Japan's balance on merchandise trade . . . turned significantly and, to date indefinitely, postive." From: Thomas Pepper, Merit E. Janow, and Jimmy W. Wheeler, *The Competition: Dealing with Japan* (New York: Praeger, 1985), p. 75.

[7] While the equity capital share of business firms' capital structure has been declining worldwide, the data are most striking in Japan. A 1976 study by Japan's Ministry of International Trade and Industry (MITI) of major firms in the United States, England, West Germany, and Japan showed equity capital ratios of 52 percent in the U.S., 42 percent in the U.K., and 29 percent in West Germany, but only 21 percent in Japan. A Japan Ministry of Finance study of a different group of firms (presumably not as large) showed an even lower equity capital ratio—14.1 percent in 1977. Takafusa Nakamura, *The Postwar Japanese Economy: Its Development and Structure*, Translated by Jacqueline Kaminski (Tokyo: University of Tokyo Press, 1981), p. 249.

[8] In contrast, both South Korea and Taiwan remain today at much earlier phases in their development.

[9] Chapter III discusses the decline in the use and effectiveness of detailed industrial policies and the reasons for such declines in somewhat greater detail. For a full discussion, see *The Competition*, op. cit., chapter 3.

Japanese government and less willing to follow government suggestions which are perceived to be in conflict with their own objectives. This trend is certain to continue as the economy develops further. Today, the goals and methods of Japanese industrial policy are being redefined as a result of economic change, budgetary constraints, and domestic and international political pressures. Inevitably, industrial policy will play a declining role in the Japanese economy in the future.

2. *South Korea*

South Korea has followed Japan's development "model" closely, but, as indicated above, due to its much smaller domestic market, it has been more dependent on exports to foster growth than has Japan. Like Japan in the 1950s and 1960s, South Korea since the early 1960s has relied on large firms to lead economic growth and exports. Unlike large contemporary Japanese corporations, however, many South Korean firms owe their very existence to the government.

At the beginning of its export drive, which only began in 1962, the newly installed Park government selected promising firms and nurtured their growth, by providing them with export incentives and easy access to credit from government banks. The resulting South Korean business conglomerates (or *chaebols*), like their Japanese counterparts the *keiretsu*, also carry heavy debt burdens. The largest *chaebols* also tend to be organized around a general trading company patterned on the Japanese trading houses.

The predominance of only a few large conglomerates in South Korea provided the government with an effective means of influencing the overall pattern of industrial development. With only a few business leaders influencing a large share of economic activity, policy directives were easily communicated. And, because these *chaebols* were (and remain) heavily dependent on the government for access to credit, such access proved an effective policy enforcement mechanism. At the same time, government support, both explicit and implicit, permitted these firms to take on high-risk projects, since the government would often, at least implicitly, guarantee that, if the venture failed, the firm itself would be protected.[10]

In some industries where large-scale production remains critical for efficient operation such high-risk investments have paid off. For example, in a scant 15 years, South Korean firms have become significant producers and exporters of automobiles and steel. In addition, the large size of the South Korean firms, coupled with their access to credit, have provided them with "deep pockets" — the ability to accept large short-term losses in the pursuit of long-term goals. A good example of the deep pocket phenomenon is the current emphasis on mass production of sophisticated semiconductors. Since 1983, three South Korean conglomerates — Samsung, Hyundai, and Lucky/Goldstar — have invested nearly $1 billion in sophisticated semiconductors.[11] This investment has yet to become profitable, and thus far the various firms have had to cover their semiconductor investments with profits from other business areas. Despite this lack of profitability, however, South Korean producers have already passed their

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[10] Government insurance against major project failure could be somewhat indirect. For example, when the 1975 shipbuilding slump left Hyundai with cancelled orders for three newly manufactured tankers, government policymakers decided that South Korean oil refineries should begin shipping crude oil from the Middle East in domestically-made tankers.

[11] James R. Schiffman and Maria Shao, "Rival Nations Race for High-Tech Lead," *The Asian Wall Street Journal* (April 11-12, 1986), p. 6.

Taiwanese competitors in semiconductor production and soon expect to become major world exporters. In contrast to their Taiwanese competition, South Korean firms have the size, diversity, and access to government financing that provides them with the staying power that remains a crucial ingredient for success in the extremely competitive world market for such mass produced products as semiconductors.

Despite its successes, however, South Korea's tendency to invest heavily in a few priority industries is an extremely risky strategy and has already resulted in some serious deficiencies in the country's economic structure. The economy is clearly burdened by an overconcentration of economic power in a small number of large firms. These firms largely produce finished goods. As a result, South Korean industry remains weak in the production of intermediate products and must therefore import inputs for its finished goods industries. Moreover, during the 1970s, South Korean industrialization was financed primarily by debt financing. Low per capita income and various financial market impediments combined with high inflation and frequent devaluations of the won together inhibited the growth of domestic savings compared to the growth in investment demand. In addition, real interest rates were often negative, further discouraging savings and encouraging corporations to borrow. Since domestic demand for funds exceeded domestic savings, foreign capital inflows were required to make up the shortfall. Although foreign direct investment was sought, it was tightly controlled, and primary reliance was placed on foreign loans. The result was a costly debt burden.[12] Much of the borrowed money was invested in large heavy industrial projects, some of which turned out to be white elephants, and has created tremendous overcapacity in some industries (e.g., shipbuilding, construction, and machinery).

These difficulties have recently led South Korean policymakers to rethink their economic policies. The current economic plan now calls for less direct government intervention, more reliance on market forces and general nondiscretionary incentives, and less support for the *chaebols*. Efforts are now being made to strengthen the role of small- and medium-size businesses and to reduce the nation's debt burden. These changes reflect the increasing complexity of the South Korean polity and economy. In the face of powerful, but conflicting pressures — such as to liberalize the economy and to protect domestic firms at the same time — direct government intervention becomes difficult. The government's choice has increasingly been to let the market decide.

3. Taiwan

Taiwan has pursued a somewhat more cautious and pragmatic industrial development strategy than either Japan or South Korea. Taiwan has used less direct government management of its economy than South Korea; and Taiwan's financial system has been and remains generally risk-adverse. The Kuomintang (KMT) leadership has left the economy largely in the hands of private entrepreneurs, while playing an extensive indirect role in the economy through indicative planning and public investment. The government has concentrated on maintaining a stable investment climate through conservative macroeconomic policies and has invested directly in infrastructure or through government corporations in "vital" basic industries and services. At the same time, the government has encouraged more stable, broadbased, and equitable growth than has the South Korean government.[13] Although the government remains a pervasive influence, the result is an economy characterized more by individual entreprenuership than by government guidance. The R.O.C. government simply does not exercise the same degree of influence over the business sector as that exhibited by the South Korean government. Indeed, firms in Taiwan often refuse to cooperate with the government.[14] Resistance by Taiwanese to government guidance stems in part from cultural characteristics such as the traditional emphasis on family enterprises, but it also reflects the limited dependence of firms on government support.

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[12] As interest rates have fallen, South Korea's debt payments have declined, since much of South Korea's commercial debt carries floating interest rates.

Taiwan's development strategy has been highly successful. During the 1951-1985 period, annual GDP growth averaged almost 9 percent, and there were marked improvements in income distribution. (See Data Appendix Tables 2-I to 2-IV for data on Taiwan's development.) This pattern of development is in sharp contrast to the expectations of many development theorists and to the experiences of many LDCs.[15] Taiwan's ability to achieve rapid yet equitable growth has resulted from a multitude of factors, but the chief cause has been the effectiveness of the economic growth strategies pursued by the KMT leadership since the early 1960s. In the 1960s, the KMT emphasized labor-intensive industrialization through selective trade liberalization and export promotion efforts coupled with a positive real interest rate policy. Together, these policies supported a shift of labor out of low productivity jobs in agriculture towards higher productivity — and, therefore, better paid — jobs in labor-intensive industries where Taiwan had a comparative advantage. From this strong base the government has since gone on to emphasize the development of capital-intensive and energy saving investments in the 1970s, and high-technology investments today.

In many ways, the Taiwanese government's cautious and pragmatic approach has created a sounder economy than that of South Korea. In contrast to South Korea, Taiwan's economy is dominated by small businesses, which provide it with a more solid foundation than the South Korean economy for dealing with economic shocks and change.[16] Taiwan's per capita GNP is 50 percent higher than South Korea's, while its income distribution is considerably more even (see Data Appendix Table 2-III). In addition, the government's stable monetary policies and its maintenance of positive real interest rates have provided the R.O.C. with greater price and currency stability than is the case in South Korea.[17] Such conservative monetary policies also have helped to make Taiwan's savings rate among the highest in the world. The large pool of domestic savings has allowed businesses to finance growth without resorting to large-scale foreign borrowing, and the nation's foreign debt has remained low. Taiwan's strong export performance has also provided the country with huge foreign exchange reserves. Indeed, Taiwan's foreign exchange reserves are now so high (by some estimates even greater than Japan's) that they have become something of an embarassment for the government, which must find a way to use them constructively. And finally, Taiwan has also placed considerable emphasis on attracting foreign direct investment. In general, Taiwan offers a more hospitable and transparent environment for foreign investment than does South Korea, with fewer restrictions on the foreign equity share and less red tape. Although foreign investment is not needed to expand total domestic savings and investment, it is very important, and seen as important, due to its other associated attributes (training, technology transfer, political linkage, management, production processes, etc.).

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[13] South Korea has a very even income distribution. However, compared to Taiwan, equitable growth appears to be a less important policy constraint. Taiwan's emphasis on equitable development stems partly from ideological convictions (as embodied in the philosophy of Sun Yat Sen) and partly from a desire to defuse any potential popular discontent.

[14] A recent example is the failure of government efforts in 1984 to curtail investment in the polyester fiber industry, which was booming due to high demand in mainland China. Following the collapse of the boom after P.R.C. authorities tightened up on foreign exchange controls, Hsu Kuo-an, director general of the Industrial Development Bureau, stated: "We gave them [market] information and ask[ed] them to stop, but they still expanded." In South Korea, he says, the government would just "freeze the loans." Maria Shao and James R. Schiffman, "Two Nations Follow Two Paths to Riches," op. cit.

[15] Many development theorists have argued that there is an inevitable trade-off between growth and equity in the early stages of development. See e.g., Simon Kuznets, "Economic Growth and Income Inequality," *American Economic Review*, Vol. 45 (March 1955), pp. 1-28. In many LDCs, growth does lead to greater income inequality, but this is largely due to the tendency for LDCs to choose capital-intensive development strategies; see the Data Appendix for various development indicators.

[16] Further detail on firm size in South Korea and Taiwan is provided in the country chapters. The issue is also examined in Lawrence J. Lau, ed. *Models of Development: A Comparative Study of Economic Growth in South Korea and Taiwan* (San Francisco, CA: Institute for Contemporary Studies, 1986).

[17] From 1965 to 1984, Taiwan had an average inflation rate of 8 percent, but the rate was only 3 percent from 1963 to 1972, before the oil shocks caused a price surge. South Korea's inflation rate averaged 13 percent from 1965 to 1985. International Monetary Fund, *International Financial Statistics* (various issues) and Council for Economic Planning and Development, R.O.C., *Taiwan Statistical Data Book 1985*.

Despite its strengths, however, Taiwan's cautious and balanced growth approach has its drawbacks. Although the large number of small companies provide the economy with flexibility to respond to changes in international demand patterns, most of these firms are too small to become major competitors in world markets. Instead, Taiwanese firms, for the most part, have had to find niche markets, exploiting opportunties for producing components and intermediate products. In addition, these small firms have tended to rely on foreign buyers, foreign investors based on Taiwan, and trading companies to market their products overseas. Finally, there is some concern that Taiwan's industrial structure may ultimately undermine the government's effort to maintain the country's competitiveness through a fairly rapid movement into high-technology industries. Small firms, as noted, have been a strong element in the flexibility and dynamism of Taiwan's progress to date. Nevertheless, some critics now believe that the average Taiwanese firm is too small and too cautious to meet the more advanced technological requirements of Taiwan's future growth strategy. Some industry representatives are urging the government to take an active role in fostering the development of larger companies that would have the resources to develop and market high-technology products. Others argue, however, that the government should not intervene more actively to promote large firms. They suggest that government guidance should be limited and take indirect forms. To date, the basic conservatism of Taiwan's policymakers and the remaining prejudice against "bigness" in Taiwanese society have given this latter position the upper hand. This much is clear, Taiwan's cautious policies have been highly successful in the past. Whether such policies will meet the future needs of the country in an increasingly competitive world environment remains unclear. The basic pragmatism of Taiwan's policymakers, however, provides a strong basis for optimism.

C. The Regional Competition

The strengths and weaknesses of the respective industrial strategies of Japan, South Korea, and Taiwan are highlighted by growing pressures from the steadily more intense competition within the Asia-Pacific region for similar export markets. The rise in manufactured exports from such Asian LDCs as Indonesia, Malaysia, and, increasingly, the P.R.C., combined with rising wage costs, have already pressured

South Korea and Taiwan to move "upstream" to produce higher value-added products. This development, in turn, has brought South Korean and Taiwanese firms into direct competition with some Japanese and American manufacturing industries, such as aluminum refining, steel, chemicals, shipbuilding, autombiles, and automobile parts, among others. These trends are prompting some Japanese producers to seek domestic protection from imports as well as other industry-support measures. At the same time, in the last several years, and for the first time in Japan's history, Japanese companies have increased their foreign sourcing from other Asian countries and have moved production of some lower value-added goods offshore. The rise in the value of the yen has accelerated this trend. Such offshore production initially was intended mainly for re-export to third country markets, but recently it has also come to supply Japanese domestic needs. Both Taiwan and South Korea have benefited from these trends.

The rise in the value of the yen should also help the NICs compete with Japan on world markets. South Korea is expected to benefit more than the other Asian NICs, because South Korean-made automobiles, steel, and VCRs compete directly with Japanese products. Taiwanese exports will also benefit, although to a lesser extent. In both South Korea and Taiwan, companies that import Japanese components and capital goods will be faced with price increases, which may encourage both domestic production and a shift to other suppliers.

Both Taiwan and South Korea are trying to shift from labor-intensive light industries to higher technology and more capital-intensive industries. This transformation will require increased investment from both foreign and domestic sources. It will also require an expanding export market. Consequently, there is much concern that protectionism in the industrial countries, particularly the U.S., may make both South Korea's and Taiwan's attempts to move in this direction more difficult. Protectionism and the loss of some GSP (Generalized System of Preferences) privileges have already intensified their competition for market share.[18] Taiwan and South Korea compete in a wide range of products, ranging from textiles to high-technology products (such as semiconductors, computers, etc.). Both countries enjoy certain advantages over their rival in this competition. Taiwan's entrepreneurial system is conducive to innovation and flexibility, but its firms often encounter financing and marketing difficulties, and tend to produce a broader range of intermediate products than South Korea. South Korean companies have staying power, the ability to mobilize large amounts of capital, and produce huge volumes of competitive manufactured goods, but they are less flexible than their Taiwanese counterparts. South Korea also enjoys a wage-cost advantage, but this advantage is eroding as other lower-wage countries enter world markets.

The United States is deeply involved in the increasingly intense regional competition among the Pacific nations, both within the U.S. market and throughout the region. American economic and political interests in the region have changed enormously in recent years. As a major actor in the Asia-Pacific region, the U.S. operates within a complex structure of multilateral economic and political ties and rivalries among the states of the region. Only some of these relationships involve the U.S. directly, but all of them have an impact on the United States. For example, Japanese trade barriers to South Korean and Taiwanese exports — although not affecting American products directly — divert these countries' products to the U.S. market and thereby exacerbate their trade tensions with the United States. This example illustrates the multilateral character of international economic and political relations in which the U.S., Japan, South Korea, and Taiwan are at the same time competitors and markets for each others' products. Thus, developments in any given bilateral trade relationship have spillover effects in other countries in the region, and can affect other countries' trade with the United States.

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[18] Taiwan and South Korea face the largest losses of any U.S. trading partners from the U.S. reduction of GSP eligible trade, beginning in July 1987. See: Nayan Chanda, "Reward and Punishment," *Far Eastern Economic Review* (January 15, 1987), pp. 50-51.

The multilateral nature of trade is often ignored by U.S. policymakers in their search for bilateral solutions to specific trade problems. It is, of course, a fact that bilateral trade negotiations are often more effective than multilateral efforts. Nevertheless, policymakers — even when conducting bilateral negotiations — must be cognizant of the likely trade diversion and political effects vis-a-vis other countries of any bilateral agreement. For example, Taiwan and South Korea compete in so many product areas that pressure on either regarding changes in their exchange rate management policy will have limited success unless both act together to ensure that each country's cost competitiveness moves in the same direction.

Looking ahead, it is clear that changes within the Japanese economy are likely to have profound effects on the nature of competition in the Asia-Pacific region and on the specific bilateral relations of countries in the region with the United States. As mentioned earlier, both South Korea and Taiwan are experiencing trade surpluses with the United States and chronic trade deficits with Japan. South Korea and Taiwan are experiencing heightened trade tensions with the United States both as a result of these surpluses, and as a result of the continued and severe trade frictions between the U.S. and Japan. All three countries in this study are facing pressures from the United States to diversify their exports away from the U.S. market and to open their markets still further to American-made goods. Improvements in the U.S.-Japan trade relationship, especially if they take the form of significant reductions in Japanese trade surpluses with the United States, will doubtless have the corollary effect of reducing some of the trade friction between the U.S. and both South Korea and Taiwan. Further, to the degree that South Korea and Taiwan are able to diversify their exports away from the U.S. market by penetrating the Japanese market, this too will have positive consequences for the continued growth of those nations and for their respective bilateral relations with the United States. In this respect, the degree to which Japan successfully develops a more open economy will have profound implications for regional and global trade relations. For this reason, we next discuss changes in patterns of Japanese trade and economic relations.

III. U.S.-JAPAN TRADE RELATIONS: MATURITY AND STRESS

A. Introduction

Perspectives on the U.S.-Japanese relationship differ widely among individuals and groups in the United States.[1] Some perceive the relationship as one of great mutual benefit, with even greater long-term potential. Others see a relationship deteriorating under a barrage of short-term disputes caused by a fundamental weakness in the long-term relationship. Namely, that the gains from the relationship are realized with extreme unevenness: in a positive world economic environment, they see a Japan that gains much more than the United States, but, when such external conditions are poor, Japan is seen to gain at the expense of the United States. These two polar views underlie much of the debate in the United States over policy towards Japan.

There is no question that Japan's extraordinary progress in the postwar period has benefited both the United States and Japan. There is also no question that Japan has gained more than the United States, at least in relative terms. On the base of a war-ravaged nation with an uncertain future, the Japanese built the world's second largest non-communist economy in less than forty years. Japanese firms have now come to challenge many U.S. industries and have come to threaten U.S. perceptions of itself as a world leader. Moreover, many Americans feel that Japan has not taken on its "fair share" of what they perceive as the common burdens of the U.S.-Japanese relationship nor of the responsibilities of a major economic power on the world scene.

Many Japanese leaders for their part recognize the importance of U.S. political and economic support during the last forty years, as well as Japan's continued high degree of economic dependence on the U.S. market. But they see their postwar successes as primarily due to their own considerable efforts. They view many of the foreign criticisms of Japanese unfairness as themselves unfair, in that they reflect more the failures of the American and European governments and corporations to maintain their own competitiveness than any unfair actions on the part of Japanese firms or government. In addition, many Japanese see American requests for Japan to take on a greater share of the common burdens as highly contradictory — the United States wants a stronger, more assertive Japan, yet also a Japan subservient to American pressure. In recent years, the Japanese press and public opinion polls suggest a growing concern that the United States has lost much of its economic resiliency and dynamism, along with its commitment and ability to maintain global security. Some are concerned that this relative decline in the United States' economic and political power may presage a further decline in the ability and/or willingness of the United States to support the political goals of the Western alliance.

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[1] This introductory discussion builds on a much more detailed analysis provided in T. Pepper, M.E. Janow, and J.W. Wheeler, *Alternative Futures in U.S.-Japanese Relations*, a background paper prepared for the United States-Japan Advisory Commission (September 1984).

The U.S.-Japanese relationship is both highly competitive and highly cooperative, and is becoming more so over time. Areas of cooperation include: the bilateral security relationship, the continued Japanese support for American positions on important multilateral issues, Japan's role as a showcase of capitalist/democratic development (the first non-western nation to achieve such success), the growing number and size of corporate joint ventures and other production, distribution, and research arrangements, the enormous dependence on each others' markets, and the increasingly complex array of financial, social, political, and cultural interactions, among others. The competitive aspects of the relationship, of course, are well-known. Japanese firms have successfully challenged U.S. companies across an increasingly sophisticated range of industries, both in the U.S. and in third country markets.

The facts are clear.[2] The United States global trade deficit has grown from US $36 billion in 1980 to an estimated US $170 billion in 1986, while the Japanese global trade balance has grown from an US $11 billion deficit in 1980 (an oil shock year) to a US $46 billion surplus in 1985 and may have reached $86 billion in 1986. Over the same period, Japan's surplus with the United States has grown from US $12 billion to $50 billion (1985). Even with the large decline in the value of the dollar since the fall of 1985, Japan's surplus with the United States has continued to grow and is estimated to have reached nearly US $60 billion in 1986.

These huge imbalances have become the source of perhaps the most serious friction in the bilateral relationship since World War II. They have led to strong political pressures for the protection of U.S. firms from Japanese competition which, in turn, have created anger and frustration in Japan. Japan has become both a symbol and a target of the frustrations felt by the U.S. government and American industry in dealing with the complex and difficult long-term adjustment problems caused by the large changes in the patterns of global economic growth, trade, finance, and investment that have occurred since the late 1960s. The bilateral tensions, in turn, have made the United States a more difficult trading partner for the rest of the world — especially for high growth, export-oriented developing countries like Taiwan and South Korea.[3]

Since U.S.-Japanese tensions have such wide-ranging repercussions, they must be analyzed carefully. Political debate and concern about the long-term aspects of the bilateral relationship are both necessary and useful, if that relationship is to develop along mutually beneficial lines. The great risk is that, in periods of stress, such healthy concern may develop into skepticism about the value of the overall relationship itself. Such skepticism in either or both countries can create counterproductive political dynamics and a long-term deterioration in the relationship.

American protectionist critiques of Japan, led by the U.S. Congress, have subsided somewhat with the sharp depreciation of the dollar since 1985, Washington's more aggressive approach to negotiation and issue settlement with its trading partners, and the progress made since early 1985 in the MOSS (market-oriented sector-selective) trade talks between the two countries on electronics, telecommunications, pharmaceutical and medical products, and forestry products.[4] However, the continuation of huge bilateral trade deficits and the advances in the mid-term congressional elections by the Democratic party — in part on a protectionist campaign — ensure that U.S. bilateral trade deficits will remain high on the political agenda. For the future, the key issue for the U.S.-Japan political relationship is how much and how soon the U.S. trade deficit will decline. If it does not, dramatic and possibly self-destructive policy actions will become increasingly likely.

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[2] The data presented in this paragraph are from several sources, but all are based on the merchandise trade reports in both countries. See: Nancy Dunne, "U.S. Trade hopes rise as deficit declines by $5bn in December," *Financial Times* (January 31, 1987); and U.S. Department of Commerce, International Trade Administration, *United States Trade: Performance in 1985 and Outlook* (October 1986).

[3] These countries also face severe difficulty penetrating the Japanese market, and both run large trade deficits with Japan. They rarely benefit from U.S.-engineered Japanese market openings, since such openings are usually restricted to areas in which the U.S. is highly competitive. Furthermore, they are worried about the potential disruptive effects of intensified U.S.-Japanese trade conflict.

This chapter addresses the bilateral trade problem by providing an analysis of the sources of the Japanese trade surplus with the United States, with special attention to the large increases in that surplus that have occurred in the 1980s. Based on rough estimates of the share of past surpluses that can be attributed to various long-term and short-term factors, policy implications are developed for dealing with current and expected trade frictions.

B. Influences on the Bilateral Trade Balance[5]

As noted above, Japan is only one of many countries that has sharply increased its trade surplus with the United States in recent years. Although it was the largest contributor to the U.S. trade deficit in 1985, Japan's share has not been growing — it holds about the same share as it did in 1980. This section assesses the degree to which various long- and short-term factors contributed to the Japanese trade surplus with the United States. It begins with an assessment of the impact of long-term macroeconomic trends on Japan's current and trade account surpluses. Historical trade patterns are then used to estimate how that trade surplus is distributed among Japan's trading partners. These estimates of the impact of long-term trends largely ignore the trade impacts of the recession, recovery, and large exchange rate changes that have occurred since 1979. Estimates of the effect of these short-term factors on the bilateral balance are then provided. Although the long-term and short-term assessments are not entirely independent, together they provide an overview of the major causal factors.

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[4] The political importance of the various specific and general frictions in the U.S.-Japan relationship tends to reflect the value of the yen-dollar exchange rate and the magnitude of the bilateral U.S. trade deficit with Japan. This can be shown to have occurred before. Thus, severe friction also occurred in 1971-72 and in 1977-78, when global and bilateral surpluses with the United States rose significantly; tensions eased when these surpluses declined.

[5] In recent years, there has been an enormous volume of published analyses of U.S.-Japanese economic relations, the reasons for Japanese successes, and the sources of U.S. problems. This section will draw on the debate without providing academic review of all of the issues and arguments. Two sources provide more detail on most of the analysis presented here: T. Pepper, M.E. Janow and J.W. Wheeler, *The Competition: Dealing with Japan* (New York: Praeger, 1985); and C. Fred Bergsten and William R. Cline, *The United States-Japan Economic Problem* (Washington, D.C.: Institute for International Economics, Oct. 1985). The latter in particular provides a sophisticated quantitative assessment of bilateral trade flows that will be used as the basis for the empirical discussion below.

1. The Macroeconomic Balance[6]

In the early 1980s, both the United States and Japan experienced a substantial break from their previous current account balance experiences. The average current account balance was about zero in the United States from 1970 to 1982, but then turned into a growing deficit (Table 3-1). In Japan, the current account averaged a

Table 3-1
CURRENT ACCOUNT BALANCES: UNITED STATES AND JAPAN, 1970-1986
(Percentage of GDP)

Year	United States	Japan
1970	0.2%	1.0%
1971	−0.1	2.5
1972	−0.5	2.2
1973	0.5	—
1974	0.1	−1.0
1975	1.1	−0.1
1976	0.2	0.7
1977	−0.7	1.6
1978	−0.7	1.7
1979	—	−0.9
1980	0.1	−1.0
1981	0.2	0.4
1982	−0.3	0.6
1983	−1.4	1.8
1984	−2.8	2.8
1985	−2.9	3.7
1986	−3.3	4.2
Cumlative (Average) Balance		
1970-82	0.1(—)	7.7(0.6)
1983-86	−10.4(-2.6)	12.5(3.1)

Notes: Dates excluding exceptional financing. (-) implies a deficit.

Source: IMF, *International Financial Statistics Yearbook, 1986* and OECD, *OECD Economic Outlook*, No. 40, December 1986, p. 139.

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[6] There are a variety of ways to look at the basic macroeconomic balance of a nation. The most common is to compare the various sources of domestic demand with domestic production. If a country demands more than it can produce for domestic use (consumption and investment), forces are put in motion to reduce demand (prices and interest rates rise), to increase production (prices rise and inventories fall), and to increase the supply from foreign sources (directly by increasing imports and indirectly by reducing exports). Total supply must equal total demand, and any imbalance between domestic demand and supply is offset by changes in net foreign trade in goods and services. A variant of this approach is to focus on the savings-investment balance. Focusing on this more narrow variant of the macroeconomic balance allows us to explore several factors of major importance that have changed sharply in recent years — especially government fiscal balances.

small surplus of 0.6 percent of GNP, from 1970 to 1982, but the surplus expanded dramatically thereafter. Indeed, the cumulative surplus for 1983-86 exceeded that for the previous 13 years by over 60 percent. Trade surpluses have been much larger than current account surpluses, because of Japan's large services deficit.

Such a dramatic shift in current account balances suggests fundamental changes in the underlying macroeconomic balances in the two countries. If domestic savings (private and public) exceed domestic investment, the domestic supply of goods and services will exceed the domestic demand for goods and services, and the country will run a current account surplus and experience an offsetting capital outflow.[7] Japan has had a much higher savings rate than the U.S. since the mid-1950s (Table 3-2). A large share of national savings has consistently come from households (including unincorporated business) — representing in most years around 20 percent of disposable income, or three times the U.S. savings rate. At the same time, enterprise savings have been relatively low in Japan — a reflection of the heavy reliance on bank lending based on household deposits. In the long-term, household savings rates have shown a fairly flat trend in both the United States and Japan, although they have fallen in both countries

Table 3-2
SAVINGS: U.S. AND JAPAN, 1970-1985

	United States		Japan	
Year	Gross Savings (% of GDP)	Personal Savings (% of DPI)	Gross Savings (% of GDP)	Personal Savings (% of DPI)
1970	18.3	8.1	40.2	18.2
1973	21.3	9.4	39.2	20.9
1976	18.7	7.6	32.6	22.4
1979	21.0	6.8	31.5	18.7
1980	19.2	7.1	31.1	19.2
1981	19.8	7.5	31.1	19.7
1982	16.8	6.8	30.5	17.6
1983	15.8	5.5	29.8	17.3
1984	17.4	6.5	30.6	16.0
1985	16.5	4.6	31.4	15.7

Notes: GDP = Gross Domestic Product, DPI = Disposable Personal Income.

Source: OECD, *Quarterly National Accounts 1986* (Paris 1986), Vol. II; OECD, *National Accounts of OECD Countries* (Paris 1981), Vol. II; and OECD, *National Accounts, Main Aggregates, 1960-84* (Paris 1985), Vol. II; OECD, *OECD Economic Outlook*, No. 40 (December 1986) and OECD, *Quarterly National Accounts*, No. 3 (1986).

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[7] Except for statistical discrepancies, the current account balance should equal the difference between gross domestic savings (private savings, capital consumption allowances, and the government fiscal balance) and gross investment (public, private, and change in stocks).

since 1981. Enterprise savings have varied considerably with the business cycle in both countries. The high Japanese savings rate was generally balanced by high domestic investment rates — over 30 percent of GNP — some one-half to two-thirds higher than U.S. rates (Table 3-3). The big changes in recent years have come in government deficits, which increased greatly in both countries (Table 3-4), and in domestic investment, which declined much more in Japan than in the United States.

Although the historically high Japanese savings rates by themselves do not necessarily result in current account surpluses, they do tend in that direction, because the high investment rates financed by the savings help to generate high rates of growth in production and productivity, thereby enhancing Japan's international competitiveness. The recent dramatic growth in Japanese surpluses with the United States, however, reflects several major changes in the underlying savings-investment balance. The oil shocks of the 1970s triggered a sharp drop in Japan's rate of economic growth, from nearly 10 percent to 4-5 percent per year. As a result of slower growth, investment fell from nearly 40 percent of GNP to below 30 percent. With private savings rates fairly constant, Japan was producing a large financial surplus on its private account. From the mid-1970s until the early 1980s, this surplus was largely absorbed by the dramatic increase in government budget deficits. But, as mentioned above, fiscal restraint led to sharp cuts in budget deficits after 1983, resulting in a

Table 3-3
U.S. AND JAPAN: GROSS CAPITAL FORMATION AS A PERCENT OF GDP

Year	United States	Japan
1955	20.4%	24.6%
1960	18.4	33.7
1965	20.0	32.0
1970	17.8	39.1
1975	16.8	32.8
1976	18.3	31.9
1977	19.9	30.9
1978	21.1	30.9
1979	20.5	32.5
1980	18.6	32.3
1981	19.3	31.3
1982	16.6	30.1
1983	16.6	28.3
1984	19.8	28.2
1985	19.2	28.3[1]
1971-75	23.7	35.9
1976-80	19.7	31.7
1981-85	18.3	29.2

Note: 1) Partially estimated.

Source: IMF, *International Financial Statistics Yearbook, 1986.*

Table 3-4
GOVERNMENT BALANCES: UNITED STATES AND JAPAN, 1970-1986
(Percentage of GDP)

	United States				*Japan*			
Year	Total Outlays	Current Receipts	Balance	Gen. Govt. Finan. Bal.	Total Outlays	Current Receipts	Balance	Gen. Govt. Finan. Bal.
1970	32.3	29.6	-2.7		19.4	20.7	1.3	
1971	32.3	28.9	-3.4		20.4	21.6	1.2	
1972	32.0	30.0	-2.0		21.9	21.5	-0.4	
1973	31.3	30.4	-0.9		22.1	22.5	0.4	
1974	33.0	31.2	-1.8		24.5	24.5	0.0	
1975	35.6	29.7	-5.9		27.3	24.0	-3.3	
1976	34.5	30.6	-3.9		27.8	23.6	-4.2	
1977	33.4	30.8	-2.9		29.0	24.7	-4.3	
1978	32.8	31.1	-1.7		30.0	24.5	-5.5	
1979	32.9	31.7	-1.2		31.2	26.3	-4.9	
1980	34.9	32.0	-2.9	-1.3	32.1	27.6	-4.5	-4.4
1981	35.2	32.7	-2.5	-1.0	34.1	29.1	-5.0	-3.8
1982	37.7	32.1	-5.6	-3.5	33.6	29.5	-4.1	-3.6
1983	38.1	31.7	-6.4	-3.8	34.3	29.8	-4.5	-3.7
1984				-2.7	33.1	30.3	-2.8	-2.2
1985				-3.4				-1.4
1986				-3.4				-1.5

Notes: (−) deficit/(+) surplus; 1986 values are OECD estimates; recent data on the preferred broad definition of the government balance was not available on a comparable basis. Thus, the General Government Financial Balance is used since 1980 to provide a comparison and to show the recent trend.

Source: OECD, *OECD Economic Outlook*, 40 (December 1986).

rising overall excess of savings over domestic investment, a current account surplus, and growing capital outflows.

Trends in the United States were just the reverse. The consolidated fiscal deficits of federal, state, and local governments increased dramatically between the 1970s and the early 1980s. While investment rates held up, private savings rates declined, resulting in a current account deficit and foreign capital inflows.[8]

Huge fiscal imbalances emerged in all of the industrial countries in the 1970s, but moves to correct fiscal imbalances in Japan and the Western European countries were more successful than the efforts made in the United States. Interest rates, exchange rates, private savings and investment, and current account balances were all forced to adjust in response to this disequilibrium. This leads to the conclusion that significant pressures on the current account and trade balances would be eased if the respective governments were to continue to take actions designed to correct the divergent savings-investment imbalances. Thus, if the United States reduced its fiscal deficit and Japan, for a time, stopped reducing its fiscal deficit, both of their current and trade account imbalances would likely ease.[9] Nevertheless, under any reasonable set of assumptions, the American economy will continue to experience fiscal deficits, deficient national savings, capital inflows, and a current account deficit for some years to come. Just the reverse must be expected in Japan. Although these imbalances are generally expected to decline as a share of GNP over time, in light of the deeply intertwined economic relationship, they ensure that Japan will run a trade surplus with the United States for the foreseeable future.

2. International Trade Patterns

Japan has traditionally run a large and growing deficit on services transactions. This deficit mostly offset the merchandise trade surplus until the late 1960s. Through the 1970s, though, except for oil shock years, the merchandise trade surplus grew much faster than the services deficit.[10] Since 1981, not only has the merchandise trade surplus continued to expand even more rapidly, but the services deficit has also begun to fall as the income from foreign portfolio and direct investments has grown dramatically. The services deficit was only US $5.1 billion in 1985, compared to US $13.6 billion in 1981; it may disappear altogether in a few years (Table 3-5). As long as Japan runs a services deficit, however, any current account surplus will necessarily show up as a trade surplus. Indeed, even if the current account were balanced, the Japanese services deficit implies a merchandise trade surplus.

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[8] In fact, more of the change in net capital inflows was due to a reduction in outflows than to an increase in inflows.

[9] Indeed, recent Japanese actions to privatize important government-owned industries present an opportunity that has not been fully utilized to stimulate domestic consumption and investment. Revenues from privatization are being used to reduce national debt rather than spending on infrastructure or other government needs. Although both inject funds into the economy, reducing debt has a much stronger impact on expanding savings than does direct consumption or investment spending by the government

[10] Historically, the main longer-term forces at work creating the basis for Japan's rapid export growth have included the more rapid investment and productivity growth in Japan than in the U.S [illegible]e basis of Japan's long- term gains in competitiveness), generally better monetary and fiscal managem[illegible] Japan than in the U.S. (which has minimized inflationary distortions), and a broad national cons[illegible] in Japan in favor of economic growth, in contrast to a much weakened growth consensus in the Un[illegible] States. Until the early 1970s, these trends toward improved export competitiveness were enhanced by [illegible]d exchange rate system that led to a persistent undervaluation of the yen.

Table 3-5
JAPAN'S BALANCE OF PAYMENTS,[1] 1979-1985
(Billions of US Dollars)

Year	Current Balance						Long-term Capital	Short-term Capital n.i.e.	Errors and Omissions
	Current Balance	Trade Balance			Services	Transfers			
		Exports	Imports	Balance					
1979	−8.7	101.2	99.4	1.8	−9.5	−1.1	−13.0	5.8	2.4
1980	−10.7	126.7	124.6	2.1	−11.3	−1.5	2.3	16.5	−3.1
1981	4.8	149.5	129.5	20.0	−13.6	−1.6	−9.7	4.9	0.4
1982	6.9	137.7	119.6	18.1	−9.8	−1.4	−15.0	0.1	4.7
1983	20.8	145.5	114.0	31.5	−9.1	−1.5	−17.0	−2.6	2.1
1984	35.0	168.3	124.0	44.3	−7.7	−1.5	−50.0	13.4	3.7
1985	49.2	174.0	118.0	56.0	−5.2	−1.7	63.3	9.7	4.5

Note: 1) IMF basis.

Source: IMF, *International Financial Statistics Yearbook, 1986* and IMF, *International Financial Statistics*, Vol. XL, No. 1, January 1987.

Trade patterns (Tables 3-6 to 3-8) tend to stay fairly stable over time because of long-term corporate and political relationships, established marketing networks and customer loyalty, and large investments (both domestic and foreign), all of which are slow to change. Overall, the Japanese trade surpluses with the United States and Western Europe have been offset by deficits with the developing countries and OPEC, while the U.S. deficits with Japan have been offset by surpluses with Western Europe and the developing countries.[11] Assuming average Japanese trade patterns for the 1978-83 period (the percentage distribution of exports by country of destination and of imports by country of origin) and applying them to the actual level of trade in 1984 adjusted to make exports equal imports for a zero trade balance, Japan would have run a trade surplus with the United States of some US $11 billion.[12] If further assumptions are made about the magnitude of the long-term trends in savings and investment, which lead to a current account surplus, and about prospects for continued services deficits, which forces the current account surplus entirely onto the trade account, similar estimates suggest that, out of the actual US $40 billion trade surplus Japan experienced with the United States in 1984, long-term macroeconomic factors explain on the order of US $20 to $25 billion.

U.S.-Japanese trade flows have also had to adjust to a variety of short-term forces — mainly different recession and recovery cycles and big changes in inflation rates and exchange rates — which interact with the long-term trading relationships. In particular, the shift to "managed" floating exchange rates in 1973 has led to wide swings in the yen-dollar rate, which mainly have reflected short-term macroeconomic pressures, such as increased cyclicality in the world economy, high global inflation with much diversity among countries, a long-term slowdown in Japanese growth rates relative to those in the United States, and the integration of global financial markets that has tended to transmit economic changes among countries at an ever-increasing rate. The simplest way to summarize the impacts of all of these factors on the bilateral trade balance is to focus on their impacts on the demand for U.S. imports in Japan and on Japanese imports in the United States. We will analyze import demand by assessing the relationship between changes in income and prices, measured in various ways, and changes in the value of imports.

a. Economic Growth

Economic growth was much higher in Japan than in the United States through the late 1970s. This created offsetting pressures on the bilateral trade balance. High Japanese GNP growth stimulated rapid import expansion; however, it also rapidly expanded the production capacity of highly competitive Japanese products.[13] Since the early 1970s, Japanese growth has slowed relative to that in the United States, which reduced both the demand for U.S. goods and, after a lag, the supply push that has tended to increase Japanese exports to the United States. Finally, the

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[11] Japan is heavily dependent upon imports of raw materials and energy. OPEC, the developing countries, and the U.S. are major suppliers of these products to Japan. Japan primarily exports manufactured goods, and these are heavily focused on the U.S. market, although Japan exports worldwide. The U.S. exports both agricultural and manufactured goods, with a strong focus on the markets of developing countries and Western Europe.

[12] The estimates in this paragraph are drawn from Bergsten and Cline, op. cit., pp. 32-41.

[13] In studies of the U.S.-Japan bilateral balance, this supply effect is often ignored, but it has important implications for long-term export growth that may not be summarized well in other ways.

Table 3-6
DIRECTION OF JAPANESE IMPORTS BY INDUSTRY BRANCH, 1984
(Millions of U.S. Dollars)

SITC	Industry Branch	World	Developed Countries	U.S.	Western Europe	Developing Countries	Latin America and the Caribbean	Asia and Oceania	Middle East	Centrally Planned Economies
Total	All Commodities	136503	55039	26980	13042	73479	7112	64891	32589	7982
0	Food & Live Animals	15191	8939	5309	1033	5359	1252	3712	20	893
1	Beverages & Tobacco	836	736	439	290	86	27	49	19	14
2	Crude Materials, Excluding Fuels	19738	11357	5217	630	7000	1940	4654	114	1381
3	Minerals, Fuels, etc.	60514	6426	2100	31	50685	2009	48457	32127	3401
4	Animal, Vegetable Oil, Fat	372	134	67	18	212	10	199	—	26
5	Chemicals, Related Products, NES	8112	6907	3813	2646	877	295	580	55	328
6	Basic Manufactures	11398	5393	1667	1997	4780	1278	3179	218	1225
7	Machines, Transport Equipment	10286	8686	5972	2575	1563	242	1282	—	37
8	Misc. Manufactured Goods	6600	3635	1954	1635	2421	7	2408	1	545
9	Goods Not Classified by Kind	3456	2828	442	2188	496	54	399	34	133

Note: Totals include items not listed separately.

Source: United Nations, *Commodity Trade Statistics 1984: Japan*, Statistical Papers, Series D, Vol. XXXIV, No. 1-11.

Table 3-7

DIRECTION OF JAPANESE EXPORTS BY INDUSTRY BRANCH, 1984

(Millions of U.S. Dollars)

SITC	Industry Branch	World	Developed Countries			Developing Countries				Centrally Planned Economies
				U.S.	Western Europe		Latin America and the Caribbean	Asia and Oceania	Middle East	
Total	All Commodities	170114	96997	60521	23808	62515	7863	50157	12819	10602
0	Food & Live Animals	1291	595	364	110	670	31	590	63	26
1	Beverages & Tobacco	150	38	29	7	111	—	110	95	1
2	Crude Materials, Excluding Fuels	1391	346	75	144	786	19	949	64	259
3	Minerals, Fuels, etc.	525	144	69	62	278	16	260	20	103
4	Animal, Vegetable Oil, Fat	148	99	9	85	43	6	373	—	6
5	Chemicals, Related Products, NES	7447	2744	1346	983	3779	198	3514	177	923
6	Basic Manufactures	30182	10919	7327	1590	14582	893	12936	3567	4680
7	Machines, Transport Equipment	113252	72004	45504	17426	37362	6379	27515	7863	3886
8	Misc. Manufactured Goods	14031	9239	5169	3201	4299	304	3866	928	493
9	Goods Not Classified by Kind	1698	869	629	201	605	17	582	42	224

Note: Totals include items not listed separately.

Source: United Nations, *Commodity Trade Statistics 1984: Japan*, Statistical Papers, Series D, Vol. XXXIV, No. 1-11.

Table 3-8
JAPAN: TRADE WITH THE U.S.A., 1971-1985
(Millions of US Dollars)

	Exports		*Imports*		*Balance*
	Amount	*Growth Rate*	*Amount*	*Growth Rate*	
1971	7,617	—	4,983	—	2,634
1972	8,981	18%	5,856	17%	3,125
1973	9,573	7	9,278	58	295
1974	12,929	35	12,681	37	248
1975	11,242	−13	11,618	−8	−376
1976	15,923	42	11,865	2	4,058
1977	20,077	26	12,474	5	7,603
1978	25,357	26	14,929	20	10,428
1979	26,452	4	20,313	36	6,139
1980	31,910	21	24,567	21	7,343
1981	38,883	22	25,275	3	13,608
1982	36,546	−6	24,185	−4	12,361
1983	43,339	19	24,795	2	18,544
1984	60,429	39	26,887	8	33,542
1985	66,684	10	26,099	−3	40,585

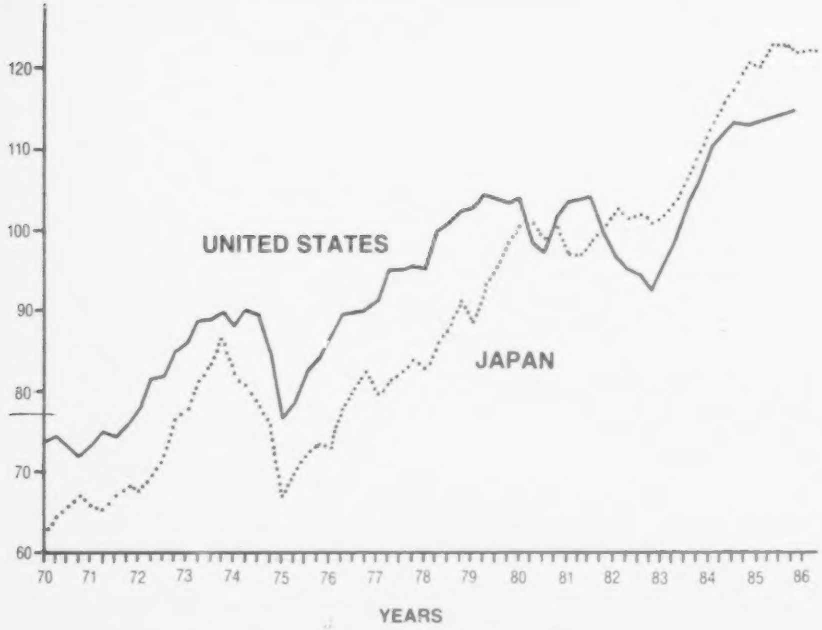
Source: IMF, *Direction of Trade Statistics Yearbook* (various issues).

business cycles in both Japan and the United States have moved in and out of synchronization, with mixed effects on the bilateral balance. A business cycle upturn in one country both increases the demand for the other's products and diverts exports to the domestic market that would have gone to the other, thus increasing the deficit (or reducing the surplus). Declining Japanese growth combined with the cyclical upswing in the U.S. in the early 1980s (Figure 3-1) tended to increase Japan's trade surplus with the United States.

The size of the impact of these changes in economic growth on bilateral trade depends upon the degree to which import demand responds to income changes. Historical data suggests that United States' imports of Japanese goods respond more vigorously to income growth than do Japanese imports of U.S. goods. Simply comparing growth rates of the respective data series reveals that, during the 1970s, a one percent growth in the United States' GNP was associated with import growth from Japan of nearly four percent, although it varied over the business cycle. From a smaller base, Japanese imports from the U.S. grew 1.7 percent for each one percent growth in Japanese GNP. Unless Japanese growth remained over twice as fast as that in the United States, this statistical relationship implies that, over the long-term, explosive bilateral U.S. trade deficits would be inevitable. However, these historical relationships differ considerably from more sophisticated estimates, which suggest a

Figure 3-1

INDEX OF INDUSTRIAL PRODUCTION FOR THE UNITED STATES & JAPAN, 1970-1986



Source: OECD, *Main Economic Indicators — Historical Statistics, 1960-1979*; and OECD, *Main Economic Indicators*, various issues.

convergence toward similar import responses to GNP growth in the two countries.[14] The causes of this large discrepancy are complex. First, production capacity for competitive goods was growing more rapidly than domestic demand in Japan. Secondly, the composition of U.S. demand was shifting toward products already made in Japan (e.g., high-quality subcompact automobiles) or towards products in which Japan had been building important strengths (mass production of both consumer and more advanced electronic devices and equipment). Thirdly, growth-oriented industries in Japan reacted slowly to the structural slowdown in Japan's economic growth potential, doubtless as a result of the highly leveraged financial structure of Japanese firms, the shifts in foreign demand, and the cost advantages of Japanese products. Export markets thus provided a viable base to offset sluggish domestic market growth. Fourthly, exchange rates did not adjust to trade imbalances between the United States and Japan as was expected, and as had happened previously in 1971-72 and 1977-78. The dollar persisted at a very high value relative to the yen until late in 1985.

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[14] Econometric estimates do not indicate that the overall income elasticity of demand for imports, after the impact of other variables has been taken into account, differs substantially between the U.S. and Japan. Estimates of the overall income elasticity of demand for imports in the U.S. range between 1.5 and 2.0. Those for Japan range from about 1.0 to 1.5 (about 1.5-2.0 for imports of finished goods, and around 1.0 for raw materials). See, for example: Research and Statistics Department, The Bank of Japan, *On the U.S. Trade Imbalances*, Special Paper No. 144, (September 1986). Japan's dependence on raw materials imports tends to reduce the country's overall income elasticity of demand for imports. Both U.S. and Japanese imports are so cyclical, however, that income effects should be separated into trend and cyclical components. Once the cyclical and trend elements are sorted out, the income elasticities of demand for each other's goods are very similar in the U.S. and Japan. Bergsten and Cline (pp. 149-160) estimate that a one percent increase in trend growth in U.S. GNP increases imports from Japan about 0.7 percent, while a one percent cyclical upswing in U.S. GNP increases them by 1.6 percent. This is offset by a reduction of U.S. imports from Japan by 1.6 percent with a one percent cyclical upswing in Japan (Japanese goods are diverted to their domestic market). The Japanese import results are similar. A one percent trend expansion in Japan raises imports from the U.S. by 0.8 percent, a Japanese cyclical upswing raises them by 1.8 percent, and a one percent U.S. cyclical upswing reduces exports to Japan by 2.2 percent.

Nevertheless, even with increasingly similar responses of import demand to income growth, the size of the bilateral trade imbalance has become so large that, barring shifts in other variables, expected economic growth rates will tend to widen the U.S. trade deficit with Japan. Of course, other variables are changing and will continue to do so — most importantly relative prices.

b. Relative Prices

The price competitiveness of Japanese goods has tended to increase over time as a result of low inflation and rapid productivity growth. In addition, the macroeconomic conditions that led to the rapid rise in the value of the US dollar after 1980 and maintained its strength well into 1985 also dramatically reduced the price competitiveness of U.S. tradeable goods (Figure 3-2). A comparison of the yen rate with that of other currencies not tied to the dollar suggests that the strong dollar was primarily caused by conditions in the United States rather than in Japan (Table 3-9). Even after adjusting for relative inflation rates, the magnitude of the dollar appreciation was so large and lasted so long that it had a major impact on the U.S. trade balance.[15] Various estimates suggest that well over half of the overall U.S. trade deficit since 1980 resulted from the unusual strength of the US dollar. Even very conservative estimates find that the exchange rate changes since 1980 account for nearly one-half of the overall U.S. deficit.[16]

c. Estimates of Income and Price Effects on U.S.-Japan Trade

Taken together, changes in economic growth, dissimilar business cycle timing, divergent inflation rates, and exchange rate shifts roughly explain the increase in

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[15] Analytical studies suggest that the U.S. price elasticity of demand for imports from Japan is over two; that is, a one percent increase in the price of Japanese goods relative to U.S. goods will reduce imports from Japan by around two percent and vice versa. This elasticity must be used with some care, however, when working with exchange rate changes. Part of any exchange rate change will be passed through to influence prices of domestic goods — how much is passed on depends upon the extent of unemployment and capacity utilization, the rate of inflation, and the degree of monetary policy restraint. Based on the Bergsten and Cline analysis, the limited pass through lowers the effective U.S. price elasticity of imports to about unity. The after-pass-through price elasticity in the Japanese bilateral import function was slightly higher, but still close to unity. In light of the real exchange rate changes since the late 1970s, elasticities of this magnitude would clearly make the exchange rate a major factor in any explanation of the Japanese surplus with the United States. Although differing in detail and approach from the Bergsten and Cline estimates, the analysis used as the basis for this discussion and a variety of other studies reach similar results. See, for example: J.H. Bergstrand, "United States-Japanese Trade: Predictions Using Selected Economic Models," *New England Economic Review* (May/June 1986), pp. 26-37; *OECD Economic Surveys, 1986/1987, Japan* (OECD, November 1986); and *OECD Economic Outlook* 40 (OECD, December 1986). The latter two sources both review some of the adjustment processes.

[16] Bank of Japan, op. cit.

Table 3-9

EXCHANGE RATES OF MAJOR OECD COUNTRIES, 1979-1986

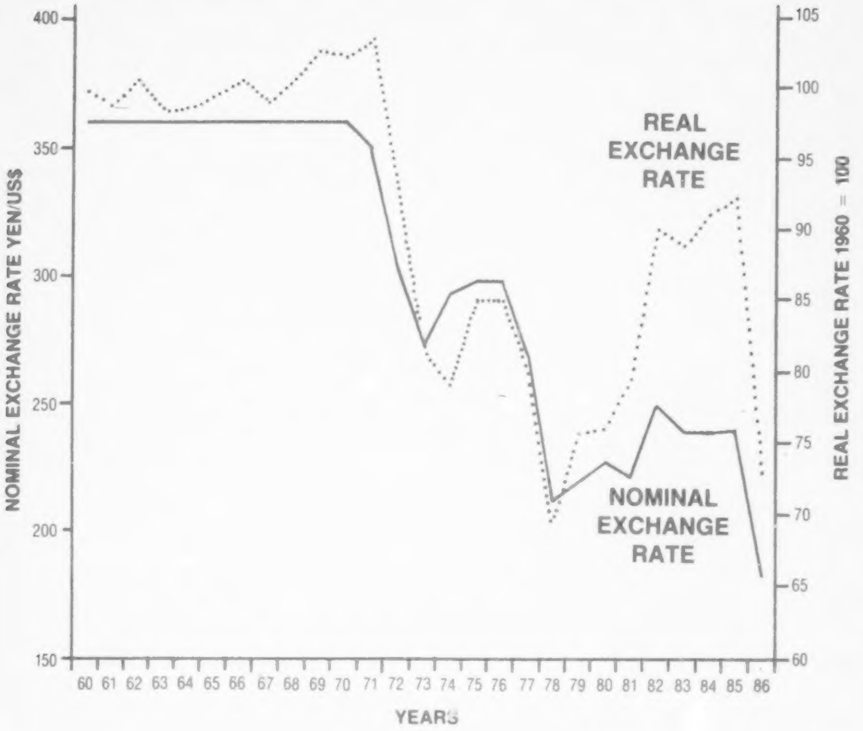
(Spot Rates in Terms of Units of National Currency per US$)

Country	1979	1980	1981	1982	1983	1984	1985	1986
United States	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Canada	1.1719	1.1692	1.1989	1.2337	1.2324	1.2951	1.3655	1,3911
West Germany	1.9829	1.8177	2.2600	2.4266	2.5533	2.8459	2.9440	2.226
France	4.2544	4.2256	4.2256	5.4346	6.5721	7.6213	8.7391	7.044
United Kingdom	0.0020	0.0017	0.0025	0.0022	0.0026	0.0032	0.0031	0.6759
Italy	830.9	856.4	1,136.8	1,352.5	1,518.8	1,757.0	1,909.4	1,524.3
Japan	219.14	226.74	220.54	249.08	237.51	237.52	238.54	171.26

Sources: IMF, *International Financial Statistics Yearbook 1986* (Washington, D.C.: IMF, 1986).

Figure 3-2

JAPAN'S REAL EXCHANGE RATE, 1960-1986



Source: IMF, *International Financial Statistics Yearbook 1986*; and IMF, *International Financial Statistics — July 1986*, Vol. XXXIX, No. 7.

the U.S.-Japan bilateral imbalance since 1980. Using alternative "equilibrium" exchange rates and relative growth rates, the United States would have run a hypothetical bilateral deficit nearly US $19 billion lower in 1984 (US $21.8 billion compared to $40.5 billion).[17] With exchange rates and business cycle conditions accounting for roughly half of the bilateral trade deficit, and with the long-term factors identified above accounting for even more, the recent bilateral imbalances are more than explained.[18] This analysis also suggests that the sharp weakening of the dollar relative to the yen since the fall of 1985 should have begun to induce improvements in the bilateral imbalance, starting in the latter part of 1986 (due to lagged adjustment effects).

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[17] Bergsten and Cline, op. cit., pp. 149-160.

[18] These two approaches to estimating components of the bilateral imbalance are not totally independent, and thus are not strictly additive. Moreover, with the large number of assumptions in both estimates, the precise values found indicate only general magnitudes, at best. For the purpose of this analysis, rough magnitudes are more than sufficient.

However, the most recent data available show the Japanese surplus with the United States continuing to widen, even though the volume of U.S. exports to Japan has increased and the volume of U.S. imports from Japan has declined in 1986. One reason is the size of the imbalance itself. With U.S. exports to Japan less than half the size of U.S. imports from Japan, the balance will increase in absolute terms unless exports grow at least twice as fast as imports, if relative prices do not change. And, with the depreciation of the dollar relative to the yen tending to raise the price of Japanese goods more than that of U.S. goods, the difference in volume growth needed to reduce the surplus becomes even greater. Moreover, the different corporate strategies pursued by Japanese and U.S. firms have delayed the impact of the exchange rate changes on trade volumes. Because Japanese firms tend to compete more vigorously for market share than U.S. firms, their initial response to the exchange rate change was to maintain dollar prices in the U.S. market and absorb profit reductions; U.S. firms have tended to follow a short-term profit expansion strategy, responding to the dollar depreciation by increasing prices at home and maintaining local market prices abroad. Thus, only part of the exchange rate change was passed on to the purchasers in the respective export markets, and there was little incentive for the importers to alter their buying plans. Given the magnitude of the exchange rate changes since the fall of 1985, however, these respective corporate strategies can only delay their impact. Japanese firms are increasingly raising their dollar prices in the United States, and the yen prices of U.S. goods in Japan are falling. Japanese government policies have helped push import price declines through to Japanese consumers more vigorously than they have in the past.[19] Anecdotal evidence on the behavior of U.S. and Japanese firms points toward continuing and cummulative adjustments to the exchange rate changes.[20] This does not mean that the full exchange rate change will show up in the prices of tradeable goods. Much of the earlier appreciation of the dollar did not lead to price reductions in Japanese imports, but was absorbed in improved profit margins. As a result, as the US dollar has appreciated, Japanese firms have not had to raise the prices of their exports as much as one might expect. They have instead been able to offset some of the appreciation by reducing their profit margins. Consequently, only the exchange rate changes above these extra profit margins are likely to be passed on.

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[19] This is done mainly through jawboning and making public the actual impact of the "Second Import Price Reductions Plan." See, for example: "More important consumer goods prices falling," *The Japan Economic Journal* (November 8, 1986), p. 24.

[20] Such adjustments may ultimately be larger than many expect. The depreciation of the dollar has accelerated various long-term adjustments in the Japanese economy that had been delayed by the dollar's earlier strength. Capacity growth in Japanese export-oriented industries will be reduced both by the private investment slowdown and by the shift to domestic demand based growth. Further, it is unlikely that Japan and the U.S. will experience such out-of-sync business cycles in the near future as they have in the recent past. Finally, Japan is experiencing serious and permanent declines in a number of previously competitive industries. This is forcing greater reliance on imports and increased investment abroad.

C. Protectionist Issues[21]

Although virtually all of the increase in the bilateral U.S.-Japan imbalance since 1980 can be explained by long-term and short-term macroeconomic factors, the political tolerance within the United States for real and perceived levels of protection in Japan has declined dramatically as the bilateral imbalance has grown. Japan is commonly viewed as having an extensive array of often unidentifiable barriers to imports, while maintaining an equally wide range of also unidentifiable incentives for exports, that together give unfair competitive advantages to Japanese industries.

With some exceptions, however, it is hard to identify major explicit barriers to trade with Japan. Barriers to market access exist and do contribute to the long-term trade imbalance shown in the historical trade patterns. But, there is no evidence that Japanese protectionism has increased enough to contribute to the recent U.S. trade deficits with Japan. Indeed, Japanese barriers have been reduced, while those in the United States have risen. Since the Tokyo Round, tariff levels have become very similar in the United States and Japan.[22] The main high tariff categories in Japan are on various processed foods and tobacco products.

With average tariffs low, except on a few politically important products, non-tariff barriers (NTBs) have become important issues for U.S. negotiators. The extent, impact, and sometimes even the existence of non-tariff barriers are hard to identify and express in quantitative terms. These barriers range from fairly explicit import quotas, "voluntary" restraints (VERs and OMAs), and discriminatory standards and licensing, to a wide variety of government policies, industrial practices, and social attitudes that affect trade in ways that are far from explicit. Among the more explicit measures used, discretionary licenses appear to be the preferred form of protection in Japan, while import quotas and voluntary arrangements are the favored methods of protection in the United States. Explicit NTBs apply to from one-fifth to one-fourth of Japanese imports of non-food manufactures, while such measures protect about one-third of U.S. imports.[23] In terms of product coverage, the United States is somewhat more protective than Japan in industrial products, while the reverse is true in Japan for raw and processed agricultural products. Although product coverage does not indicate the degree of restraint, various inherently imprecise estimates of the tariff equivalents of non-tariff barriers suggest that, outside of agriculture, processed foods, and a few industries like petroleum products in Japan and textiles and clothing in the United States, average protection at the industry level is only slightly higher in Japan than in the United States.[24] But, for agricultural products, Japanese protection is much higher than U.S. protection.

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[21] The data cited in this section are from Bergsten and Cline, chapter 3; and M. Ernst and J.W. Wheeler, *The Effects of Industrial Country Protectionism on Selected Developing Countries* (Indianapolis, IN: Hudson Institute, January 1987), chapter 2.

[22] Simple unweighted average tariff levels are 6.3 percent in the United States and 6.0 percent in Japan; weighted by import volumes, they fall to 4.4 percent and 2.8 percent respectively (both using GATT definitions that exclude many primary product categories). Using a broader commodity definition, also weighted by import volumes, yields a U.S. average tariff of 4.6 percent and a Japanese average of 6.8 percent.

[23] Bergsten and Cline, op. cit., citing Gary R. Saxtonhouse, "The Micro and Macroeconomics of Foreign Sales to Japan," in *Trade Policy in the 1980s*, William R. Cline (ed.), (Washington, D.C.: Institute for International Economics, 1983). For a variety of estimates, also see: J.J. Nogues, A. Olechowski and L.A. Winters, "The Extent of Non-Tariff Barriers to Industrial Countries' Imports," Discussion Paper #DRD115, Development Research Department, Economics and Research Staff, World Bank (Washington, D.C.: World Bank, January 1985).

The finding that explicit protection of manufactured products in Japan is not much higher than in the United States is inconsistent with the widely held American perception of Japan as a highly-protected market. In part, this is due to the very short time period during which Japanese barriers have been reduced. As indicated above, however, perhaps even more important is the prevalence of barriers to imports in forms that are hard to identify and quantify. These range from regulation, procurement practices, industrial policies and administrative barriers, to the close relationships and institutions that have developed within and among the highly concentrated Japanese business groups, the "closed" nature of Japanese society, and the complex Japanese distribution system.

Although the anecdotal evidence for the existence of these various types of barriers is extensive, their impacts are very difficult to measure. Once the size of the country (as measured by GNP), transportation costs, and natural resource endowments are taken into account, Japanese imports, in terms both of structure and shares of GNP, basically fit the norm suggested by imports of other industrial countries. Japan, however, imports a much smaller share of manufactured goods than any of its industrial country competitors. Given the limited natural resources of the country and the domestic concentration on manufacturing, one would expect a lower share of manufactured imports. The question is, of course, how big a difference is reasonable. In 1985, only 25 percent of Japanese imports were manufactured goods, compared with 70 percent in the United States, 82 percent in Canada, and 58 percent into the EC as a bloc (48 percent excluding intra-EC trade).[25] Various econometric exercises assessing comparative advantage among countries tend to find such a low share consistent with underlying fundamentals and comparable to what would happen in other industrial countries if they faced similar circumstances (with specific industry exceptions). Some quantitative studies come to contrary results. Although all such quantitative exercises are indirect evidence, at best, and suffer from various statistical problems, over time the analyses have increasingly tended to support the view that Japan's import demand is not significantly skewed by existing barriers. Nevertheless, we must view the issue as unresolved.[26]

Several general comments are possible regarding the various forms of protectionism in Japan. First, most of the explicit barriers to imports were removed by the mid- to late-1970s.[27] Second, the remaining barriers to imports derive mainly from institutional relationships, such as the efforts of oligopolistic group firms to discourage imports and such bureaucratic processes as government procurement and regulatory practices. Very recently, even these barriers have been easing, though slowly. Third, many of the problems of greatest concern to Americans are the result of broadly protectionist policies of the past — some of which no longer exist and most of which no longer exist to the same degree as in the past. As Japanese firms have become less dependent on the government, the ability of the government to direct private sector actions has declined. Where Japanese industrial policies remain, they have shifted over time away from the early emphasis on explicit trade protection toward various forms of broad based industry-support measures. In general, such support is focused on facilitating the development of high-technology industries and easing adjustments in declining areas of the economy. Although it is difficult to argue that such Japanese government policies constitute export subsidies or represent explicit barriers to imports under current legal definitions, they are precisely the types of policy actions that have generated extensive disagreement among GATT members — notably between the United States and almost everyone else. Fourth, a growing number of foreign firms have successfully increased their presence in Japan in areas directly traceable to reduced protection. Examples include banking and finance, insurance, pharmaceuticals, and a variety of other services and retail areas. These successes have not had much impact on the trade or current account flows as yet, primarily because of the severe macroeconomic imbalances analyzed above; but undoubtedly will in the long-run.

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[24] See: R. W. Staiger, A. V. Deardoff, and Robert M. Stern, "The Effects of Protection on the Factor Content of Japanese and American Foreign Trade," (Ann Arbor: University of Michigan Press, March 1985); and P.A. Petri, *Modeling Japanese-American Trade: A Study of Asymmetrical Interdependence* (Cambridge, MA: Harvard University Press, 1984), as reported in Bergsten and Cline.

[25] Data are calculated from: General Agreement on Tariffs and Trade. *International Trade 85-86* (Geneva, 1986), various Appendix Tables.

[26] Much of this literature is reviewed in Bergsten and Cline, op. cit., Chapter 3. We see too many instances where the various analyses fail successfully to sort out the short- and long-term market characteristics to dismiss Japan as not being atypically closed to goods imports. However, compared to the macroeconomic pressures on the bilateral balance, any such closedness contributes only a small share of the recent growth in the Japanese surplus.

[27] See: T. Pepper, M.E. Janow, and J. W. Wheeler, *The Competition*, op. cit., for a detailed description of changes in Japanese industrial policy over time, its strengths, its successes, and its failures.

D. Summary, Outlook, and Policy Implications

The empirical analysis presented above strongly supports the contention that exchange rates and relative growth rates accounted for most if not all of the deterioration in bilateral U.S.-Japan balances since 1980, and that the correction of the exchange rate since fall of 1985 should begin to result in improvements in the trade account in 1987 and beyond. Indeed, the overall U.S. trade deficit should decline by as much as US $30 to $40 billion from its estimated 1986 level of nearly US $170 billion.[28]

Most of this trade improvement will be directly or indirectly with Japan and some Western European countries, especially West Germany, since these are the countries whose currencies have strengthened the most relative to the dollar. After some delay, U.S. firms are beginning to compete successfully again in many markets, thanks both to the depreciation of the dollar and to the considerable improvements in U.S. productivity and cost control. Several important constraints, however, will continue to limit the impact of the exchange rate changes on overall U.S. trade. Developing countries' imports will continue to be constrained by heavy debt burdens. Still, the weaker dollar will help prevent further losses of U.S. market share in these markets to Japanese and Western European firms and may even improve market share in some. Among the industrial countries, neither Western Europe nor Japan are expected to experience vigorous growth, and since the respective governments seem unwilling to pursue strong stimulative policies, import demand will remain sluggish.

Japan has started to stimulate its domestic economy during the past year, but such efforts are likely to remain limited. The Bank of Japan reduced the discount rate four times in 1986, most recently on November 1, 1986, to a postwar low of three percent. In September, the Japanese government submitted an infrastructure spending package of some US $22.6 billion to the Diet. This was offset somewhat at the end of October when a supplementary budget was submitted that actually cut spending to compensate for an expected tax shortfall by some US $1.7 billion.[29] Thus, even with slowing growth, record high unemployment rates (2.8 to 2.9 percent, low by U.S. and Western European standards, but high for Japan), and fears that unemployment will continue to rise, the government response has been modest.[30] As a result, various forecasting groups argue that near-term Japanese growth is more likely to be in the 2.0 to 2.5 percent range than near the government target of 4.0 percent.[31]

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[28] Even the very pessimistic projections in the *OECD Economic Outlook*, 40 (December 1986) show a trade balance improvement in 1987, though only of $3 billion (on a balance of payments basis).

Slow Japanese growth will tend to offset reductions in Japan's trade surplus induced by the fall in the value of the dollar. Japanese imports will be extremely sluggish, both because of the large share of industrial inputs in imports and because the price of those products has dropped substantially. Moreover, Japanese companies retain a strong export bias and a fierce competitiveness that drives them to maintain market share as long as possible. If this requires taking losses while cost reductions and foreign investments are made to improve their competitiveness, they will do so. Many Japanese firms are now trying to adjust to the high yen by shifting to higher valued-added products, moving production lines offshore, adopting costcutting measures, and, to some extent, importing more intermediate inputs — especially from Taiwan and South Korea. These patterns, when coupled with declining competitiveness in various Japanese industries, create enormous opportunities for U.S. firms. For example, the multinational base, management, and technologies of many U.S. firms, combined with the relatively low cost and flexibility of Taiwanese firms, offer a variety of joint venture, licensing, and other contractural possibilities to take advantage of Japan's growing demand for imported inputs.

Thus, as discussed above, the macroeconomic forces at work suggest a substantial move in the direction of improving U.S. trade balances. The primary improvements will be in terms of gains for U.S. producers against Japanese competition in the U.S. market and in third country markets. Gains in the Japanese market will be more sluggish because of slow demand growth and continued resistance to foreign investment. Nevertheless, imports as a share of Japanese consumption should increase and the U.S. share of those Japanese imports should also increase. Already in 1986, U.S. exports to Japan rose 20 percent, while U.S. imports grew only 18 percent.[32] The long-term shift of the United States towards growing trade deficits can be expected to slow, if the U.S. government improves its fiscal balances over time, and if the tax reform both is implemented and performs as many expect. As for Japanese fiscal policy, the challenge for the government is to stimulate domestic growth enough to reduce the burden of the fiscal imbalances by more than the immediate stimulus expands the fiscal deficit. It is unclear whether the recent actions fall within this narrow path.

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[29] At about the same time, a tax reform was proposed by the Government Tax Commission that, if adopted, might tend over time to enhance investment and reduce the bias towards high savings. It will have little to no short-term effect, since the debate is likely to go on for at least another year.

[30] The manufacturing sector has been losing jobs, especially in chemicals and petroleum product industries, and it is clear that heavy industries, especially steel and shipbuilding, are going to be forced to shed more workers this year. The heavy and chemical industries can no longer shift workers among divisions or among other group member firms to the extent that was previously possible. The impact of the exchange rate change coming on top of long-term structural declines has become too much to handle without employment reductions.

[31] See, for example: *OECD Economic Outlook*, op. cit.

[32] These numbers are from the U.S. Department of Commerce.

There will continue to be an excess of savings over investment in Japan and an excess of investment over savings in the United States. This will result in current account imbalances in opposite directions in the two countries, but both the overall and bilateral trade imbalances in both countries should become smaller.

Several other changes will alter the structure of multilateral trade. For the United States, the maturation of U.S. direct investments overseas will continue to reduce exports to countries in which those investments are located and may increase imports from those countries. The high dollar accelerated these trends in the early 1980s, and the now weaker dollar may slow some of them, but the fundamental shift to a mature overseas foreign investment base is likely to continue. The current international environment offers incentives for some U.S. firms to supply the Japanese market from their offshore investment locations (mainly in Taiwan, South Korea, Singapore, and Hong Kong). Although many U.S. firms talk about a foreign investment based export strategy, this is usually in connection with efforts to export back to the United States rather than efforts to export to third country markets. Despite the exchange rate changes, it is far from clear how much and how rapidly U.S. corporations will seek to take advantage of the expanding opportunities.

U.S. investments within Japan offer a somewhat different image. The ability to invest in Japan was very restricted until the early 1970s, and even then foreign direct investment was limited. Takeovers, the preferred form of U.S. corporate expansion, have been virtually impossible in Japan until recently. Many U.S. investment efforts have failed for a wide variety of reasons, e.g., local cultural and administrative barriers to investment and poor planning and management. There are now enough success stories of U.S. firms based in Japan to suggest that a local presence is a prerequisite for strong performance in the Japanese market.

Moreover, the data suggest that a growing U.S. investment presence in Japan would improve the trade balance. A 1983 MITI survey found that foreign investors in Japan import more than they export (Table 3-10). The foreign investment presence in Japan is still quite small, but this study suggests that continued U.S. policy pressures to ease access to foreign investment offer the potential for long-term improvements in the bilateral trade balance. Since this survey, there have been some important changes in investment patterns in Japan. A few foreign investors have taken over small and often troubled manufacturing operations in Japan. This has been tolerated and in a few cases even encouraged by the Japanese government.[33] Obviously, some of these efforts will fail, but the anecdotal evidence from the last two-to-three years suggests that a continuation of this trend is likely to have beneficial long-term effects on the structure of U.S.-Japan bilateral trade and on the political relationship.

Traditionally, Japanese firms and the government have sought to have as broad a production base as possible at home. Firms have resorted to outward foreign investment, mainly for those things considered vital to the maintenance of its integrated group strategy at home. Such investments over the postwar period have typically been in raw materials extraction and processing, in the establishment of sales and marketing outlets, and in the creation of assembly and manufacturing operations to protect market share or circumvent protectionist barriers. Only very recently have Japanese firms started shifting production facilities offshore because of cost considerations. Even then,

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[33] Examples include Merck Pharmaceutical Company's acquisition of the Banyu Corporation and Kodak's acquisition of Nagase, to name only two.

Table 3-10
TRADE OF FOREIGN AFFLIATES IN JAPAN
(Millions of Yen)

	Trade of All Foreign Affiliates			Trade of U.S. Affiliates with U.S.			Trade of European Affiliates with Europe		
Industry	Total Exports	Total Imports	Balance	Exports to U.S.	Imports from U.S.	Balance with U.S.	Exports to Europe	Imports from Europe	Balance with Europe
Manufacturing	560,492	3,938,626	−3,938,626	170,873	327,239	−156,366	37,746	135,101	−97,355
Commercial	373,220	853,973	−480,753	101,094	88,245	12,849	34,917	147,807	−112,890
Service	7,271	9,827	−2,556	1,086	5,773	−4,687	1,607	1,592	15
Other	9,471	904	8,567	74	666	−592	76	83	−7
TOTAL	950,454	4,803,330	−3,852,876	273,127	421,923	−148,796	74,346	284,583	−210,237

Source: Ministry of International Trade and Industry, "Foreign Affiliates in Japan," *News from MITI*, NR-311(85-15), December 1985.

however, Japanese multinationals have tended to follow a different strategy than those from the United States. Japanese assembly and manufacturing investments abroad have been primarily targeted on supplying the local market, with as large a share of Japanese produced components as possible, and for re-exporting to third country markets, but not back to Japan. Textiles and clothing are a good example. Japan began losing competitiveness in many areas of the industry in the late 1960s and early 1970s. The major textile-producing firms shifted entire plants to developing countries (sometimes wholly-owned, frequently not) from which they then continued to export. As Japan has become an increasingly high-wage country, similar patterns can be seen in a variety of labor-intensive consumer electronics and other light manufactured goods. With the yen appreciation since the fall of 1985, the shift offshore has expanded at an extraordinary pace.

The pattern of Japanese investment in the United States has been consistent with the overall pattern described above. Japanese investment has been very small until recently, but has expanded at an exponential rate in the last ten years. Most of these investments have been in distribution and marketing, or, in the case of banking and insurance, initially came in to support such activities. Assembly and manufacturing investments in the United States have become important only very recently. Such investments have been induced by a variety of concerns, including fear of trade barriers in the United States, the need to shift operations closer to key markets, efforts to offset exchange rate risk by increasing the share of production costs denominated in dollars, and a desire to gain better access to U.S. technology. Once in place, there has been a tendency for the domestic value-added of these plants to increase, as local suppliers substitute for imports from Japan and as Japanese suppliers make investments in the United States to follow their main customers. Most of these Japanese investments have not served as a base for re-export back to Japan. Still, Japanese trading companies do handle a considerable volume of U.S. exports, mainly to third countries. With the great adjustment pressures on the Japanese economy, some of the Japanese firms in the United States may begin to export back to Japan, but the real advantages lie in intermediate goods produced in the higher-income NICs.

Many U.S. firms have just gone through four-plus years of enormous competitive pressures caused by the strong dollar. This forced many to trim profit margins and postpone price increases as well as undertake rigorous costcutting and significant new investments in machinery and equipment to improve efficiency. Some of the firms that have pursued such a "lean-and-mean" strategy are now prepared to be very aggressive competitors. Of course, at the same time, many U.S. firms also switched to lower priced parts and materials produced overseas, both by importing and by shifting part of their production base offshore.[34] Even with the recent depreciation of the dollar, many of these new relationships, especially foreign investment, will be slow to change. Nevertheless, recent evidence suggests that changes are occurring—some U.S. firms have delayed foreign investment decisions, orders are up in foreign markets, U.S. bids are increasingly competitive at home and in third country markets, profit margins are going up, etc.

What policy options are available for the two governments? As should be clear from the discussion above, since the fundamental disequilibrium between the two economies has been macroeconomic in nature, only macroeconomic solutions will correct the resulting trade imbalances. In both countries, macroeconomic policies are driven primarily by domestic concerns—the international implications of macroeconomic trends and policies have very little influence on participants in the trade policy debate, and vice versa. Macroeconomic factors have such an important impact on trade that it is imperative that any trade discussions include new and creative efforts to understand and influence these links. Unfortunately, the political incentives to do so are low in both the United States and Japan, since neither government reacts well to outside attempts to influence domestic policy.

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[34] For example, it is estimated that some 30-40 percent of Japanese exports to the United States consist of original equipment and parts for U.S. manufacturers.

In our view, the elements of any U.S. policy strategy must have several components. The United States must continue to reduce the structural component of its budget deficits as a share of GDP. Without a successful sustained effort, U.S. macroeconomic policy will prevent the stable adjustment of the international system and will create pressures for a continued deterioration in multilateral trade and financial relationships. Current budget projections are simply not aggressive enough to correct the trade imbalances. The recent pursuit of a generally expansionist monetary policy by the Federal Reserve is certainly appropriate and should be maintained, unless inflationary pressures begin to build. On Japan's part, expansion of private and public investment is needed beyond that implemented in recent budgetary actions. Japan's expected slow rate of growth and the high propensity of the Japanese to save, especially when conditions turn more adverse, will partly offset the improvements in the bilateral imbalance implied by the strengthening of the yen. Naturally, the debate in both countries on how to correct the fiscal imbalances while achieving other socially desirable goals is a difficult one. Nevertheless, without real actions to correct macroeconomic balances in both countries, none of the other trade policy actions taken will have much effect.

A related issue is the unofficial/official agreement between the United States and Japan on the value of the yen. Both the United States and Japan should be cautious in any attempt to stop the depreciation of the dollar. Japan has already lost billions of dollars while leaning against the correction, and it seems inadvisable for the United States to do the same. Certainly, smoothing the fluctuations of exchange rate changes is a legitimate goal that can prevent speculative runs, but history provides us with little confidence in the efficacy of large-scale intervention.

Smoothly working currency markets are important to the further internationalization of the yen. In the short-term, liberalization of the Japanese financial system can have contradictory effects on exchange rates as Japanese capital flows out. Over the long-term, the opportunities in Japan are likely to attract growing capital inflows. In many ways, Japan is the natural financial center for the region and at the same time is grossly under-invested from the perspective of foreign firms. Foreign direct investment flows into Japan, in particular, will have very direct impacts on correcting the trade imbalances.

Many of the short-term contrary effects of financial market liberalization reflected in exchange rates may have already worked themselves out. Much of the huge pent-up capital outflow from Japan that followed the adoption of the December 1980 Foreign Exchange and Foreign Trade Control Law, has by now run its course.[35] The portfolios of the big pension and life insurance funds began approaching their legal limits early in 1985. There are still substantial funds in Japan that have not as yet been diversified into foreign assets, such as the postal savings system and some of the specialized financial institutions, but these funds are likely to move more slowly and cautiously, once they are permitted to diversify. If the surge is over, continued liberalization will tend to support currency market stability. This argues strongly against the adoption of any of the variety of short-term measures that have been proposed to restrict capital flows by both the United States and Japan, such as interest equalization taxes and voluntary restraints. Use by the Ministry of Finance of window guidance to restrain capital outflows temporarily during the past two-to-three years may have been beneficial politically and, if it prevented over-adjustment, also beneficial to the economy. But, at best, these were temporary fixes, and many firms found ways of bypassing the restraints. This kind of private sector response to government regulation supports the experience of other countries that have tried similar restraints; they usually prove ineffectual and frequently create undesirable private behavior.

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[35] The huge outflow of capital from Japan in a very short period following this legal change cannot be entirely attributed to pent-up demand for diversification. The interest rate differential between yen- and dollar-denominated assets was extremely large at the time.

In the trade policy area, a variety of long-term and short-term measures can be pursued. The Japanese government should continue seriously to address key sectoral issues such as those covered in the MOSS discussions and aggressively attack those institutional impediments to foreign access to the Japanese market over which it has control. The Japanese government has, with great fanfare, periodically introduced a number of liberalization packages. These packages, for the most part, have had limited impact and, as a result, have engendered considerable bitterness and skepticism in the U.S. and appear to many Americans to be at best disingenuous. In all fairness, most such market opening measures as were adopted cannot be expected to have dramatic short-term effects on trade. Nevertheless, the Japanese government could benefit from greater realism in the announcement and implementation of trade liberalization packages; why promise more than can be delivered?

Short-term trade results usually require temporary and often dramatic measures. For its part, the Japanese government can, and has in the past, accelerated or initiated large purchases from the United States of aircraft, military hardware, and more recently communication satellites. Furthermore, the Japanese government can, and we believe should, include U.S. firms in major infrastructure (and other) projects over which the government has oversight. With the strong yen, it is very hard to argue that no U.S. firms are competitive enough to participate in such projects. Efforts along these lines will not eliminate bilateral trade imbalances nor will they necessarily eliminate political tensions. Nonetheless, the economic and political effects are complementary and support long-term economic adjustment.

Within the United States, perhaps the single most dramatic action that could be taken to influence the bilateral balance in the short-term would be the sale of Alaskan oil to Japan. Despite all the political problems involved, the collapse of global oil prices (even though they have now firmed up again) offers an opportunity to change U.S. policy. Sale of Alaskan oil would have little, if any, effect on the overall U.S. balance (i.e., exports to Japan of Alaskan oil would be replaced by imports of oil from Mexico and other countries). Some savings would occur because of the more efficient oil distribution, but the main effect would be to reduce the U.S.-Japan bilateral imbalance anywhere from US $2 to $16 billion, depending upon oil market trends and other factors. Such an action would also reduce the Japanese perception of the United

States as an unreliable supplier for critical goods. The past use of export controls[36] adds to the reluctance of the Japanese government to negotiate on food items, especially rice, with the United States.

These various short-term bilateral measures would, at best, make a modest contribution to easing the bilateral imbalances. More importantly, they would demonstrate a mutual commitment to maintaining an open trading system based on fair trade principles, and they would buy time while the longer-term structural and macroeconomic adjustments occur. It is particularly important that constructive bilateral negotiations occur and that both countries actively participate in multilateral solutions to global economic problems. Positive steps are now critical to avoiding the escalation of trade problems. If some positive steps are not taken, serious trade confrontation will be hard to avoid. Negotiation obviously requires a certain amount of confrontation, but it must be done with great care in the presence of such high economic stress. With substantial weakening of the domestic U.S. coalition for free trade and the increased willingness of both Republican and Democratic public officials to introduce trade restricting measures, such positive steps on both sides of the Pacific have become even more crucial.

[36] The most notable and important case was the imposition in 1973 of an export embargo on soybeans, a product considered vital to Japan. One result of this was large Japanese investments in Brazil to create an alternative source, which now competes with the U.S. on world markets.

IV. THE UNITED STATES AND THE REPUBLIC OF KOREA: NEW TENSIONS IN THE ALLIANCE

A. Introduction

South Korea is one of the United States' most important allies. Its geostrategic position makes its defense critical for the preservation of American interests in Asia.[1] Indeed, the United States has already gone to war once to preserve South Korean independence and continues to maintain troops on South Korean soil to guard against an attack from the North. This longstanding military commitment has blossomed over the years into a wide-ranging political-economic relationship. American aid, military support, trade, loans, and personal relationships have bound the two countries together. At the same time, South Korea has been transformed from an impoverished, war-ravaged country into one of the leading economic powers of the Asia-Pacific area. In the process, it has begun to have an increasing impact on the American economy and domestic political consciousness. In 1985, South Korea was the seventh largest supplier to the U.S. market — accounting for 30 percent of total U.S. imports. It was the sixth largest source of America's manufactured imports — accounting for 3.9 percent of total manufactured imports. On the other hand, South Korea was also the United States' eighth largest export market in 1985 — accounting for 2.8 percent of total U.S. exports. It was the tenth largest market for America's manufactured exports as well — accounting for 2.2 percent of the total.[2]

Nevertneless, America's mounting trade problems have led to increasing American pressure on the South Korean government to open its markets or face increased protectionist barriers against its own products in the U.S. market. The importance of the American market to South Korea makes this an extremely serious threat. In 1985, South Korea's trade with the United States accounted for 28.1 percent of its total trade — 35.5 percent of its total exports and 20.8 percent of its total imports were to and from the United States.

The South Koreans, of course, consider American pressure to be unjustified. They often point out that their country (unlike Japan and Taiwan) has only recently begun to run a sur [illegible] on its trade with the United States; furthermore, only in the past year has South K [illegible] begun to enjoy an overall surplus on its merchandise trade account. In addition, much of the foreign exchange that South Korea earns must go towards servicing its international debt — the majority of which is held by American banks.

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[1] The Korean peninsula forms a natural invasion route between the Northeast Asian mainland (the Soviet Far East & Northeastern China) and Japan. However, in the immediate aftermath of World War II, South Korea did not have the importance to the U.S. that it has today. U.S. attention was focused on China. The loss of the mainland by the KMT forced a rethinking of U.S. policy in Asia. Japan became the new linchpin of U.S. interests in Asia, and the emphasis of U.S. occupation policy shifted from "democratization" of Japanese soc [illegible] estoring Japan's industrial power. At the same time, the strategic importance of Korea was heighte [illegible]

[2] U.S. Dep [illegible] ommerce, International Trade Administration, *United States Trade: Performance in 1985 and* [illegible] shington, D.C., U.S. Government Printing Office, October 1986).

The South Koreans accordingly believe that they are being attacked unfairly. In particular, they believe that they are being blamed for the sins of others — most especially Japan. It is their view that South Korea's trade surpluses with the United States are due more to the high value of the dollar than to any structural imbalances. This chapter examines the causes of South Korea's bilateral surpluses with the United States.

B. Macroeconomic Influences on the Trade Balance

Changes in macroeconomic balances, as indicated earlier, can have important consequences for a country's current account balance, and, thus, its trade flows. The recent shift of South Korea's current account balance from large deficits to an unprecedented US $5 billion surplus (for 1986) suggests that the underlying macroeconomic trends may have shifted substantially. In particular, improved government policies have contributed to a significant increase in private savings which, combined with a much stronger trade performance, has reduced the need for foreign capital inflows to finance investment.

South Korea's rapid economic growth since 1961 has been fueled by a high level of investment. Between 1953 and 1960, the average ratio of nominal gross capital formation to nominal GNP was approximately 10 percent. This ratio began to move upward in 1961, but remained below 15 percent until 1965.[3] Thereafter, it quickly leaped upward — topping 20 percent of GNP in 1966 and 25 percent in 1969. With the single exception of 1972, the investment rate never again dropped below this point (see Table 4-1).

Most of this investment was undertaken by the private sector. Since 1963, the South Korean government itself has actually invested only 18 percent of total investment.[4] Nevertheless, the government has played a critical role in stimulating private investment, by providing various financial incentives to the private sector and engaging in informal "jawboning" to promote private sector investment, especially in the manufactured export and import-substitution industries. The major incentive mechanisms have been specialized, long-term loans with favorable interest rates offered through deposit banks and the Korea Development Bank (KDB), various corporate income tax reductions, and tariff waivers for imports of necessary capital goods. For most of the period, the government also kept interest rates low to stimulate investment.[5] Because of the concurrent high rate of inflation, negative real interest rates have often been the norm — thus stimulating borrowing to finance private investment and restraining private savings.

The government's policies have been highly successful in stimulating private investment. Without these enormous investments, the South Korean economy could

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[3] Sung Yeung Kwack, "The Economic Development of the Republic of Korea, 1965-1981," in *Models of Development: A Comparative Study of Economic Growth in South Korea and Taiwan*, ed. Lawrence J. Lau (San Francisco, CA: Institute for Contemporary Studies Press, 1986), p. 105.

[4] Ibid.

[5] Government interest rate policy has essentially gone through four phases. Before September 1965, the government kept interest rates on savings and loans at low levels. From September 1965 through the end of 1971, the nominal interest rates of savings were set high enough to encourage savings and a positive real interest rate was maintained. After 1972, however, the government reverted to its "cheap money" policy. Since 5982, the Chun government has been careful to maintain adequate positive real interest rates. See: ibid., pp. 111-112; Lee Kap-soo, "Savings Rate on Steady Increase," *The Korea Herald* (June 29, 1986).

Table 4-1
SOUTH KOREA: GROSS DOMESTIC CAPITAL FORMATION AS A PERCENTAGE OF GNP, 1964-1985

Year	At Current Market Prices	At Constant Market Prices
1964	14.1	10.3
1965	15.0	10.2
1966	21.6	15.7
1967	21.9	16.8
1968	25.9	20.6
1969	28.8	25.7
1970[1]	26.8	23.4
1971	25.1	24.7
1972	22.2	21.0
1973	25.7	24.1
1974	31.6	29.1
1975	30.0	28.0
1976	25.6	28.2
1977	27.7	30.9
1978	31.2	34.6
1979	35.6	38.8
1980	31.3	31.3
1981	29.1	30.1
1982	27.0	30.0
1983	27.8	31.1
1984	29.7	35.0
1985	31.2	33.8

Note: 1) Data prior to 1970 are not revised in the rebasing on 1980.

Sources: Korean Traders Association, *Major Statistics of the Korean Economy, 1984*; National Bureau of Statistics, Economic Planning Board Republic of Korea, *Korean Statistical Yearbook, 1985*; The Bank of Korea, Republic of Korea, *Monthly Bulletin*, Vol. 40, No. 3 (1986); and The Bank of Korea, Republic of Korea, *Economic Statistics Yearbook 1986*.

not have achieved the high rates of growth of the past two decades. Nevertheless, the government's strategy has left South Korean firms with extremely high debt-equity ratios. Furthermore, much of this investment was financed through foreign capital inflows.

South Korea has depended heavily on foreign capital to finance its economic growth. In the 1950s, foreign capital inflows were the major source of finance for capital formation. During the latter half of the 1960s, the proportion of foreign capital to total capital formation remained approximately 40 percent (see Table 4-2). Thereafter, however, the share of foreign capital showed a steadily declining trend. The exceptions are the periods in the immediate aftermath of the two oil shocks of 1973-1974 and 1979-1980. The sudden increase in foreign capital inflows during these two periods reflects increased South Korean borrowing as the country tried to sustain economic growth despite higher prices on its oil imports and, in the 1979-80 period, higher interest rates on its accumulated foreign debt.

In the early years, the bulk of South Korea's foreign capital imports consisted of net transfers — most especially U.S. aid; net borrowing was negligible in the 1950s. From 1955 to 1962, foreign aid contributed more than half the total resources available for capital accumulation in every year; in some years, it contributed much more.[6] Until the late 1960s, the United States was the sole provider of aid (the only exception being early United Nations aid to which the U.S. was the dominant contributor). American assistance to the South Korean economy during these years was critical (see Data Appendix, Table 4-I). Anne Krueger has written that: "In the absence of aid, it is clear that, if domestic saving had not altered, net investment would probably have been negative in several years. . . . It follows, therefore, that, given domestic savings rates, aid flows in the 1950s were necessary in order to permit such economic growth and recovery as took place. By and large that conclusion holds even if one takes into account the fact that domestic savings would probably have increased somewhat had aid flows been significantly reduced. . . . It seems reasonable to conclude that large aid inflows were essential . . . in the immediate post-war period and that, in their absence, per capita income would have stagnated, if not declined."[7] Although American aid was critical initially, its importance began to diminish in the early 1960s. This decline reflects both the increasing vitality of the South Korean economy and a declining trend in the amount of aid provided.

The reduction in aid did not mean the elimination of foreign capital inflows as an important source of investment financing. From 1965 to 1980, 85 percent of foreign capital inflows represented net borrowing.[8] Net borrowings had begun to increase rapidly from the mid-1960s; in 1968, they surpassed net transfers; and by 1970, net borrowing was almost three times the size of net transfers.[9] South Korea had emerged from the 1950s virtually debt-free. In 1965, the country still owed less than US $1 billion; however, by 1970, the nation owed over US $2 billion and was accumulating more. At the end of 1984, South Korea's total foreign debt was US $45 billion — making it the fourth largest borrower in the Third World, behind Brazil, Mexico, and Argentina (see Data Appendix, Table 4-II).

The responsibility for South Korea's rapid accumulation of debt must be borne by the nation's economic planners. When establishing their five-year development plans, South Korean policymakers first set the target growth rate, which, in turn, then determines the required level of investment. If expected domestic savings cannot meet the required investment, then the difference is made up by foreign capital inflows. The important point is that the targeted growth rate is the determining factor. Domestic savings have not been considered a constraint on growth or investment.[10] In practice, South Korean planners have always been prepared to borrow abroad to achieve a target rate of growth.[11] During the external shocks of the 1970s and early 1980s, however, such policies led directly to a rapid acceleration of South Korea's debt accumlation. Following the first oil shock in 1973, South Korean financial authorities borrowed heavily from abroad, in order to maintain a high domestic rate of growth. In the latter half of the 1970s, South Korean policymakers once again borrowed heavily from foreign capital markets, in order to meet their huge investment goals in capital-intensive industries. In both cases, this approach had very adverse consequences on South Korea's balance of payments.

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[6] In 1956, for example, net transfers from abroad exceeded total saving, since government dissaving exceeded private domestic saving. See: Anne O. Krueger, *The Developmental Role of the Foreign Sector and Aid* (Cambridge, MA: Harvard University Press, 1979), p. 205.

[7] ibid., pp. 205-209.

[8] Sung Yeung Kwack, op. cit., p. 108.

[9] Anne O. Krueger, op. cit., p. 210.

In a planning system in which economic policy targets determine investment growth, variations in net foreign borrowing largely result from fluctuations in domestic savings.[12] South Korea's domestic savings/GNP ratio has shown significant instability relative to gross domestic capital formation (Table 4-3). Inevitably, these fluctuations in the savings rate have been reflected in South Korea's current account deficits (see Table 4-4). For example, the deterioration in South Korea's current account ratio during 1974-75 was the result of a sharp decline in the savings rate leading to increased foreign borrowing to finance expanding investment. In turn, the subsequent improvement in the current account followed an upward shift in the savings rate to catch up with investment, which led, of course, to a decline in the demand for foreign funds.[13]

Although South Korean economic planners recognize that a heavy reliance on foreign borrowing is not desirable in the long-run, they considered it unavoidable in the initial stages of economic development. They argued that rapid economic growth

Table 4-3
A COMPARISON OF SOUTH KOREA'S SAVINGS AND INVESTMENT RATIOS, 1966-1981

	Savings/GNP			Gross Domestic Capital Formation/GNP		
Period	Range	Average	S.D.	Range	Average	S.D.
1966-73	11.4-22.8%	15.8%	3.4%	21.6-28.85%	24.6%	2.3%
1974-81	19.1-28.5	23.8	3.5	27.7-35.6	30.3	2.8
1966-81	11.4-28.5	19.8	5.3	21.6-35.6	27.4	3.8

Note: S.D. = Standard deviations from the mean.

Source: Calculated from data presented in Tables 4-1 and 4-4.

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[10] Yung Chul Park, "Korea's Experience with External Debt Management," in *International Debt and the Developing Countries*, ed. G.W. Smith, J.T. Cuddington, World Bank Symposium (Washington, D.C.: World Bank, 1985), p. 292.

[11] Ibid., pp. 292, 295-296. Foreign borrowing was encouraged by South Korea's high creditworthiness in international financial markets. Also, it was cheap. From 1965 to 1979, real interest rates on foreign loans were negative, except in years when large currency devaluations were undertaken. In addition, from 1966 to 1979, the cost of foreign borrowing was consistently lower than the cost of domestic loans.

[12] Ibid., p. 293.

[13] The fluctuations in the savings rate have resulted from a combination of factors — including shifts in government interest rate policy (see note no. 5) and economic performance.

Table 4-2
SOUTH KOREA: DOMESTIC AND FOREIGN SAVINGS, 1964-1985
(Billions of Won)

Year	Gross[1] Domestic Investment	National Savings	Private	Governmemt	Foreign Savings	Statistcal Discrepancy	% of Gross Domestic Investment			
							National Savings	Private	Government	Foreign
1964	100	63	59	3	49	−11	62.3	59.0	3.3	48.8
1965	121	59	46	14	51	10	49.1	37.7	11.4	42.6
1966	224	123	94	29	88	13	54.9	42.1	12.7	39.1
1967	281	146	93	33	113	22	51.9	33.2	18.7	40.2
1968	428	249	148	35	184	−6	58.3	34.7	23.6	43.1
1969	621	406	278	127	229	−13	65.3	44.8	20.5	36.9
1970[2]	719	465	290	175	250	4	64.7	40.3	24.3	34.7
1970	693	431	256	175	250	13	62.2	36.9	25.3	36.0
1971	848	492	316	176	353	3	58.0	37.2	20.8	41.6
1972	923	687	543	144	211	24	74.4	58.9	15.6	22.9
1973	1,381	1,225	1,008	217	199	−43	88.7	73.0	15.7	14.4
1974	2,375	1,492	1,300	191	911	−28	62.8	54.8	8.1	38.4
1975	3,030	1,927	1,552	375	1,023	80	63.6	51.2	12.4	33.8
1976	3,557	3,311	2,504	807	320	−75	93.1	70.4	22.7	9.0
1977	5,026	4,980	4,031	949	102	−55	99.1	80.2	18.9	2.0
1978	7,555	6,894	5,357	1,537	753	−93	91.3	70.9	20.3	10.0
1979	11,139	8,781	6,615	2,166	2,222	136	78.8	59.4	19.4	19.9
1980	11,630	8,130	5,964	2,165	3,500	1	69.9	51.3	18.6	30.1
1981	13,343	9,919	7,058	2,861	3,506	−82	74.3	52.9	21.4	26.3
1982	13,980	11,594	8,397	3,197	2,320	66	82.9	60.1	22.9	16.6
1983	16,225	14,516	10,125	4,390	1,679	30	89.5	62.4	27.1	10.4
1984	19,447	17,862	12,822	5,040	1,679	55	91.8	65.9	25.9	7.9
1985	22,540	20,530	15,987	4,542	2,236	−266	91.1	70.9	20.2	9.9

Note: 1) Gross investment includes gross capital formation and changes in inventories. 2) Data prior to 1970 are not revised in the rebasing on 1980.

Sources: National Bureau of Statistics, Economic Planning Board, Republic of Korea, *Korea Statisical Yearbook, 1985*; Korean Traders Association, *Major Statistics of Korean Economy, 1984*.

Table 4-4

SOUTH KOREA: DOMESTIC SAVINGS, GROSS DOMESTIC CAPITAL FORMATION, AND CURRENT ACCOUNT AS PERCENTAGES OF GNP, 1966-85

Year	Savings Ratio[1]	Investment Ratio[2]	Current Account Ratio[3]
1966	11.9	21.6	−2.8
1967	11.4	21.9	−4.5
1968	15.1	25.9	−8.4
1969	18.8	28.8	−8.3
1970	15.7	25.3	−7.8
1971	14.6	25.1	−9.0
1972	16.5	22.2	−3.5
1973	22.8	25.7	−2.3
1974	19.9	31.6	−10.9
1975	19.1	30.0	−9.0
1976	23.8	25.6	−1.1
1977	27.5	27.7	0.0
1978	28.5	31.2	−2.1
1979	28.1	35.6	−6.7
1980	21.8	31.3	−8.7
1981	21.7	29.1	−6.9
1982	22.4	27.0	−3.7
1983	24.8	27.8	−2.1
1984	27.3	29.7	−2.1
1985	28.4	31.2	−1.2

Notes: 1) National savings as a percentage of GNP. 2) Gross domestic capital formation as a percentage of GNP. 3) Current account balance as a percentage of GNP.

Sources: Tables 4-1; and Economic Planning Board, Republic of Korea, *Major Statistics of Korean Economy, 1984*; The Bank of Korea, Republic of Korea, *Economic Statistics Yearbook, 1986.*

through export promotion would gradually raise the propensity to save and hence reduce South Korea's dependence on foreign savings. In fact, domestic savings as a percentage of GNP have grown impressively, if somewhat erratically (Table 4-5). While government savings as a percentage of GNP have shown a steady and moderate upward trend, the increase in domestic saving has largely been due to the rise in private sector saving.[14] In general, private savings have been highly erratic, but they

Table 4-5
SOUTH KOREA: NATIONAL SAVINGS AS A PERCENTAGE OF GNP, 1964-1985
(At Current Market Prices)

Year	GNP (Billion Won)	Savings as a Percent of GNP (%)		
		National Savings	Government	Private
1964	716	8.8	0.4	8.2
1965	806	7.3	1.7	5.7
1966	1,037	11.9	2.7	9.1
1967	1,281	11.4	4.1	7.3
1968	1,653	15.1	6.1	9.0
1969	2,155	18.8	5.9	12.9
1970[1]	2,684	17.3	6.5	10.8
1970	2,736	15.7	6.4	9.4
1971	3,375	14.6	5.2	9.4
1972	4,154	16.5	3.5	13.0
1973	5,378	22.8	4.0	18.7
1974	7,503	19.9	2.6	17.3
1975	10,092	19.1	3.7	15.4
1976	13,881	23.8	5.8	18.0
1977	18,115	27.5	5.2	22.2
1978	24,225	28.5	6.3	22.1
1979	31,249	28.1	6.9	21.2
1980	37,205	21.8	5.8	16.0
1981	45,775	21.7	6.2	15.4
1982	51,787	22.4	6.2	16.2
1983	58,428	24.8	7.5	17.3
1984	65,380	27.3	7.7	19.6
1985	72,317	28.4	—	—

Note: 1) Data prior to 1970 are not revised in the rebasing on 1980.

Sources: Korean Traders Association, *Major Statistics of the Korean Economy, 1984*; National Bureau of Statistics, Economic Planning Board, Republic of Korea, *Korea Statistical Yearbook, 1985*; The Bank of Korea, Republic of Korea, *Economic Statistics Yearbook, 1986*.

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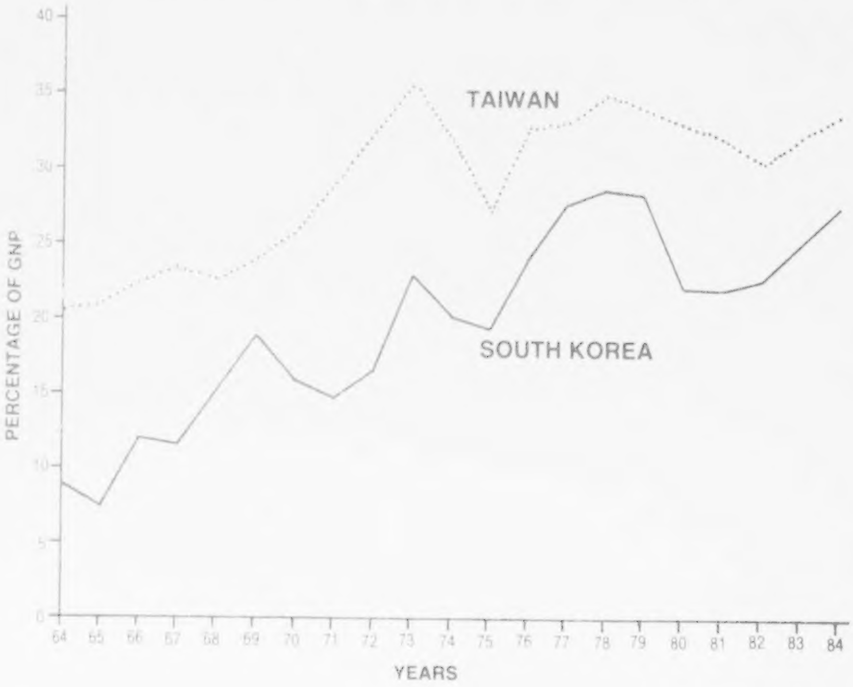
[14] Government savings rose from 1.7 percent in 1965 to 7.7 percent in 1984. In turn, the proportion of government savings has remained at around 20 percent for most of the period. See: Sung Yeung Kwack, op. cit., p. 108.

have nevertheless risen from 5.7 percent of GNP in 1965 to 22.2 percent in 1977; they fell sharply in 1980 after the assassination of President Park, but then increased again to 19.6 percent of GNP in 1984. Corporations have typically played a more important role in private saving than households, supplying between 30 and 40 percent of total savings. After 1977, the proportion of corporate saving declined slightly, but has remained near 30 percent. The major form of corporate saving has been provisions for depreciation, while net saving has been of secondary importance. Household saving, on the other hand, was much less important until the late 1970s, when it grew to over one-third of total savings.[15] In 1984, household saving amounted to almost 10 percent of GNP, with corporate saving slightly larger.[16]

Today, South Korea has one of the highest savings rates in the developing world, but its level of savings is still significantly below those of its major trade competitors — Japan and Taiwan. The distinction between South Korean and Taiwanese saving patterns (Figure 4-1) has been much commented upon. While South Korean savings

Figure 4-1
NATIONAL SAVINGS RATES: SOUTH KOREA VS. TAIWAN, 1964-1984



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[15] Ibid., p. 110.
[16] Lee Kap-soo, op. cit.

rates have certainly increased over the years, Taiwanese savings rates have remained substantially higher. The difference between South Korean and Taiwanese saving behavior can largely be explained by two simple variables — per capita income and government policy. Taiwan's per capita income has always been higher than South Korea's; consequently, its savings have kept ahead of South Korea's. In addition, government policy has been more pro-savings in Taiwan than in South Korea. Until recently, the combination of inflation and low interest rates have tended to discourage savings in South Korea.[17]

In recent years, as concern about South Korea's foreign debt has grown, greater attention has been paid to the country's savings habits. Although South Korea's debt-service capacity is not in question, the size of the debt — which had reached US $46.7 billion by the end of 1985 — combined with the increased debt-service cost due to higher international interest rates, has begun to make many South Koreans uncomfortable. Since 1981, the Chun government has accordingly moved to hold down inflation and guarantee positive real' interest rates on bank deposits, in order to stimulate savings. Thanks to these efforts, the strong upward trend in savings has been revived, and South Korea's current account position has improved. Some South Koreans now argue that ". . . this is a proper time for all the parties concerned — government, business, and households — to do their utmost to cut down on non-productive spending and increase savings to reduce the nation's huge foreign debt and boost the international competitiveness of Korean goods."[18] Such efforts certainly make good sense domestically, but, given the current pressures on South Korea to import more goods and reduce its trade surplus with the United States, would undoubtedly continue to raise bilateral tensions.

C. Trade Patterns

1. Overview

Since the early 1960s, when the Park regime adopted an export-oriented development strategy, international political and economic influences have been of critical importance to South Korea's economic development. In the relatively open trade environment of the 1960s and early 1970s, South Korea was able to expand its trade rapidly without significant adverse political reaction abroad. From 1964 to 1972, South Korea's exports grew at a compound average annual rate of 39 percent, while its imports grew 26 percent. Slower world economic growth and increased protectionism reduced South Korean export growth in the next decade. Nevertheless, from 1973 to 1985, South Korean exports grew at a healthy compound average annual rate of 20 percent, while its imports grew 18 percent (see Table 4-6). As a result, South Korea became one of the world's leading trading nations.[19]

Despite South Korea's phenomenal export expansion, the economy remains highly import-dependent and the country's overall trade balance has remained consistently in deficit over the entire period from 1964 to 1985. Not only are imports equivalent to

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[17] William D. Sharpe, "Korea and Taiwan: Behind the Growth Charts," *The Asian Wall Street Journal* (April 8, 1985).

[18] Lee Kap-soo, op. cit.

[19] "Korean Trade and Protectionism," Korean Exchange Bank, *Monthly Review*, Vol. XX, No. 2 (February 1986), pp. 8-9.

Table 4-6
SOUTH KOREA'S BALANCE OF FOREIGN TRADE, 1964-1986
(Millions of US Dollars)

Year & Month	Exports	Imports	Balance	Won/U.S. Dollar Exchange Rate[1]
1964	119	404	− 285	255.00
1965	175	463	− 288	270.96
1966	250	716	− 466	270.36
1967	320	996	− 676	267.84
1968	455	1,463	−1,007	271.10
1969	622	1,824	−1,201	303.60
1970	835	1,984	−1,149	310.56
1971	1,068	2,394	−1,327	370.00
1972	1,624	2,522	− 898	398.10
1973	3,225	4,240	−1,015	396.50
1974	4,460	6,852	−2,391	483.00
1975	5,081	7,274	−2,193	483.00
1976	7,715	8,774	−1,058	483.00
1977	10,046	10,810	− 764	483.00
1978	12,711	14,972	−2,261	483.00
1979	15,055	20,339	−5,283	483.00
1980	17,505	22,292	−4,787	657.50
1981	21,254	26,131	−4,878	698.30
1982	21,853	24,251	−2,397	746.90
1983	24,445	26,192	−1,747	793.50
1984	29,245	30,631	−1,386	825.30
1985	30,283	31,136	− 853	887.90
1986[2]	10,034	10,693	− 659	885.27

Notes: 1) Buying rate based on the free market rate among foreign exchange banks. 2) January-April 1986.

Sources: National Bureau of Statistics, Economic Planning Board, Republic of Korea, *Major Statistics of Korean Economy, 1984;* National Bureau of Statistics, Economic Planning Board, Republic of Korea, *Monthly Statistics of Korea, 1986*; National Bureau of Statistics, Economic Planning Board, Republic of Korea, *Korea Statistical Yearbook, 1985*.

nearly one-third of GNP (three times the Japanese ratio), but they also expand very abruptly with GNP growth. South Korea's income elasticity of imports is about 1.5, considerably more than those of either Taiwan or Japan. Not surprisingly, investment is the most import-dependent economic sector (Table 4-7). South Korean exports are also highly import-dependent. Anne Krueger has shown that, prior to 1970, the growth of imported raw materials and intermediate goods used directly and indirectly in export

Table 4-7
INDICATORS OF IMPORT-DEPENDENCE: SOUTH KOREA VS. JAPAN AND TAIWAN

A. INCOME ELASTICITIES OF IMPORTS[1]

Period	S. Korea	Japan	Taiwan
1960-1973	1.71[2]	1.44	1.32
1974-1979	1.49	0.68	0.75
1980-1984	1.39	−0.11	−0.35
1960-1984	1.51[2]	1.11	1.16

B. IMPORT INDUCING INDICES[3]

	South Korea				Japan
	1970	1975	1980	1984	1975
Consumption	0.13	0.19	0.23	0.22	0.11
Investment	0.39	0.48	0.42	0.35	0.12
Export	0.26	0.36	0.38	0.36	0.17
Final Demand	0.20	0.29	0.30	0.28	0.12

C. DEPENDENCE ON IMPORTS BY INDUSTRY[4]
(Percentages)

Industry	South Korea			Japan
	1975	1980	1984	1975
Agriculture, forestry, and fishing	2.4	2.2	1.4	1.4
Mining	4.0	0.6	0.9	0.9
Manufacturing	22.0	22.7	22.2	9.7
(Light industry)	(14.2)	(15.0)	(14.7)	(8.4)
(Heavy & chemical)	(33.1)	(30.2)	(28.2)	(10.5)
Construction & utilities	6.2	4.1	3.0	1.6
Others	3.3	7.0	6.1	3.1
Average	12.8	14.2	13.5	5.3

Notes: 1) Increase rate of imports/increase rate of final demand. 2) For S. Korea, statistics prior to 1963 were not included. 3) Imports per unit of final demand. 4) No definition provided in the source, but by implication share of final demand.

Source: "Import Liberalization in Korea," Korean Exchange Bank, *Monthly Review*, Vol. XX, No. 3 (March 1986), pp. 4,5.

production was faster than export growth itself.[20] Since the mid-1970s, every $100 worth of exports has required some $40 of imports.

The most important reason for South Korea's high degree of import-dependence lies in its industrial structure. Kim Tae Yon, a director-general at the Economic

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[20] Anne O. Krueger, op. cit., p. 137.

Planning Board (EPB), has bluntly stated that the nation's trade deficit "...is due to the unbalanced pattern of our development over the past 30 years."[21] The South Korean economy is dominated by a relatively small number of huge industrial conglomerates (or *chaebol*). These large conglomerates, which mostly produce final products, account for the bulk of national production, sales, and employment (see Data Appendix, Tables 4-III and 4-IV).[22] Although they have certainly contributed to the nation's development, their stranglehold on the economy, which has been supported by government policy, has left little room for the development of small firms. And it is the small- and medium-sized firms that dominate the parts and components industries in most countries.

This lopsided economic structure has largely been the result of government policies that have failed to create opportunities for the development of "backward linkages" in South Korea's industrial structure. The export-financing system, by supplying subsidized short-term credit tied to export volume, has encouraged investments that can produce exports soon after a plant begins operation. At the same time, financial incentives have encouraged a relatively capital-intensive production technology in export production, while the tariff exemption system — which provides duty-free entry for goods that are to be re-exported after processing — encourages exporters to import their inputs.[23] These incentives have made it more profitable for large firms to assemble final products from imported parts and components rather than produce these intermediate inputs themselves or purchase them from small-scale domestic producers. And, with limited access to capital, most domestic parts and components manufacturers have tended to be inefficient producers of substandard goods. As a result, the large South Korean conglomerates have continued to rely heavily on foreign parts, mostly from Japan.[24] This problem will not be solved quickly, whatever the government does now.

Since the early 1960s, the composition of South Korean imports has changed only gradually. There has been an accelerated growth in imports of raw materials, crude oil, and capital goods and relatively slower growth of imported consumer goods.[25] (Table 4-8 and Figure 4-2 provide data on the structure of South Korea's imports. More detailed data is provided in the Data Appendix, Table 4-V.)[26] The composition of South Korea's exports, however, has changed rapidly over time. Light industrial products were South Korea's mainstay during the 1960s and 1970s — representing over 60 percent of its exports; by 1984, however, the share of light industrial products in South Korea's exports had declined, while heavy industrial products became pre-

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[21] Paul Ensor, "Caught in the Machine," *Far Eastern Economic Review* (September 18, 1986), p. 64.

[22] The scale of these firms can be better appreciated by making some simple comparisons. South Korean companies accounted for 7 out of the 10 largest private firms in LDCs in 1984: Samsung (1), Hyundai (2), Lucky-Goldstar (3), Daewoo (4), Sunkyung (6), South Korea Explosive (8), and Hyosung (10). Several also stand out among the Fortune 500 largest non-U.S. industrials in 1984: Samsung (38), Hyundai (39), Lucky-Goldstar (43), Daewoo (48), Sunkyung (62), South Korea Explosive (185), Pohang Iron & Steel (209), and Hyosung (216). See: Young-Ki Lee, "Conglomeration and Business Concentration: The Korean Case," in *Industrial Policies of the Republic of Korea and the Republic of China*. Papers and Discussions from the Joint KDI/CHIER Conference, November 21-22, 1985 (Seoul, Korea: Korea Development Institute, 1985), p. 185.

[23] Yung Chul Park, op. cit., pp. 293-294.

[24] Laxmi Nakarmi, "A 'Quick-fix' Solution," *Business Korea* (June 1986), p. 16.

[25] "Import Liberalization in Korea," Korean Exchange Bank, *Monthly Review*, Vol. XX, No. 3 (March 1986), p. 5.

[26] One indicator of the bias of industrial growth towards final goods is the share of imported consumer goods in the total; it has fallen from over 24 percent in 1962 to 8.5 percent in 1985. See: ibid., p. 6.

Table 4-8
SOUTH KOREA: IMPORTS BY COMMODITY AND USE, 1984-1985
(Millions of US Dollars)

Commodity/Use	1984		1985	
	Value	Share (Percentage of Total)	Value	Share (Percentage of Total)
Raw Materials	17,589	(57.4)	17,402	(55.9)
Crude Oil	5,771	(18.8)	5,572	(17.9)
Others	11,818	(38.6)	11,830	(38.0)
Capital Goods	10,106	(33.0)	11,081	(35.6)
Transportation Machinery	3,086	(10.1)	3,895	(12.5)
General Machinery	7,020	(22.9)	7,186	(23.1)
Consumer Goods	2,936	(9.6)	2,653	(8.5)
Cereals	1,311	(4.3)	1,180	(3.8)
Others	1,625	(5.3)	1,473	(4.7)
Total	30,631	(100.0)	31,136	(100.0)
Export Use	12,594	(41.1)	13,495	(43.3)
Domestic Use	18,037	(58.9)	17,641	(56.7)

Note: Figures in parentheses denote the ratio to total imports.

Source: "Import Liberalization in Korea," Korean Exchange Bank, *Monthly Review*, Vol. XX, No. 3 (March 1986), p. 6.

dominant (see Figure 4-3; and the Data Appendix, Table 4-VI which shows South Korea's major exports). Since 1980, export growth has come from ships, (in spite of a depression in the world shipbuilding industry), electronic products, and automobiles. Light industrial exports — footwear, textiles, toys, etc. — have grown little, because of a combination of increasing import barriers in traditional markets and increased competition from lower-cost Asian producers. In order to preserve their market share, firms in these industries have had to move up market into higher value-added products.

A good example is South Korea's toy industry. In 1985, toys were South Korea's tenth largest export, accounting for $481 million — making the country the world's seventh largest toy exporter. Ninety percent of its output is exported, with the bulk of those exports (75 percent in 1985) going to the U.S. market.[27] The industry is heavily dependent on imported inputs, e.g. the motors and gears used in moving toys, mostly from Japan.[28] In the past, South Korea's toy industry has depended heavily on stuffed toys — "piggy-backing" on the advantages offered by the country's textile industry. However, stuffed toys make up only 10 percent of the world toy market and,

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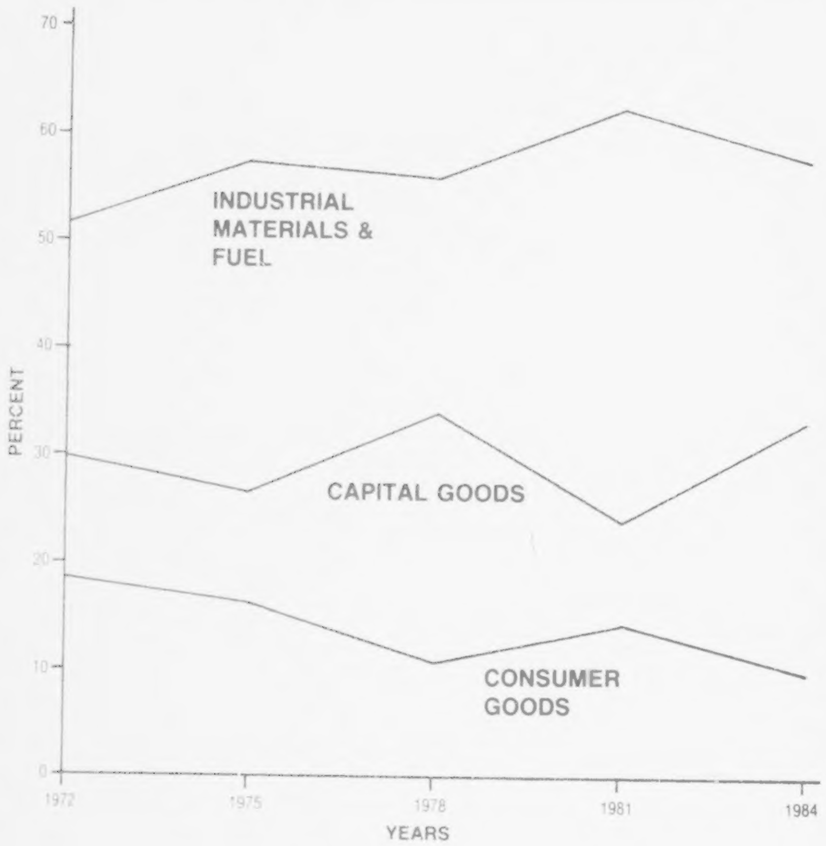
[27] "Heart-to-Heart Bear Gears up for Battle," *The Asian Wall Street Journal* (September 11, 1986).

[28] Choi Kyung-Jee, "Stuffed Toy Market Hits Its Limits," *Korea Business World* (June 1986), p. 15.

Figure 4-2
CHANGES IN THE STRUCTURE OF SOUTH KOREA'S IMPORTS, 1972-1984



Source: "Korean Trade and Protectionism," Korean Exchange Bank, *Monthly Review*, Vol. XX, No. 2 (February 1986), p. 10.

therefore, offer little room for further expansion.[29] In addition, South Korea is losing its price competitiveness in toys.[30] As a result, many argue that the industry should concentrate on making plastic, metallic, and electronic toys, which carry a higher price

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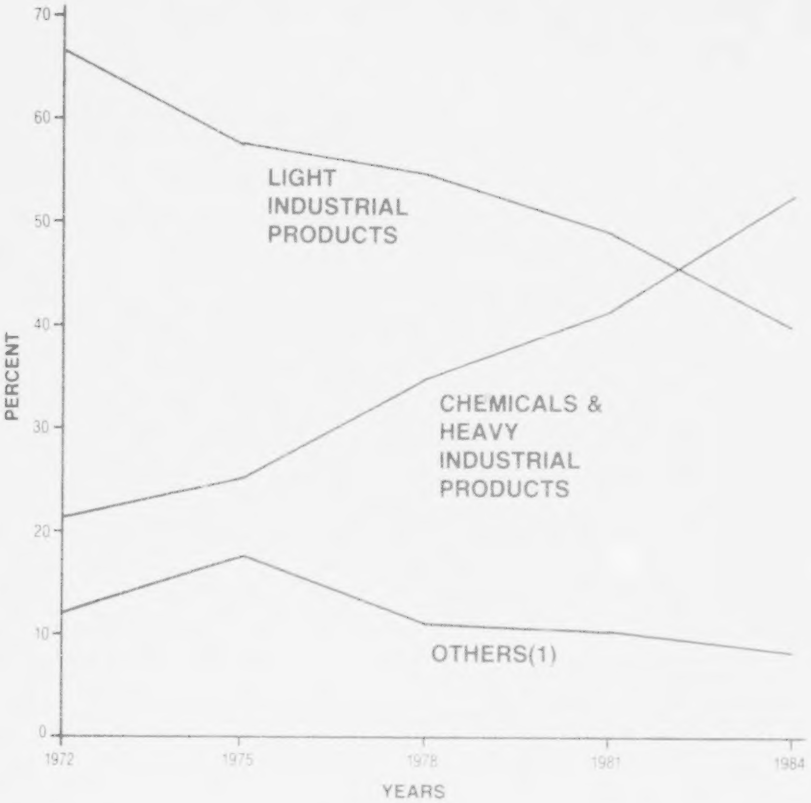
[29] "Heart-to-Heart Bear Gears up for Battle," op. cit.

[30] Ironically, this is partly a result of government trade policy. One toy manufacturer has stated: "Acrylic fiber used for toys produced by South Korean manufacturers is more expensive on the domestic market than the same acrylic fiber exported to Taiwan. It means that Taiwan buys the same fiber at a lower cost. That gives South Korean toy makers a heavier burden than Taiwan in manufacturing cost." See: C. . Kyung-Jee, op. cit., p. 16.

Figure 4-3
CHANGES IN THE STRUCTURE OF SOUTH KOREA'S EXPORTS, 1972-1984



Note: 1) Includes food and direct consumer goods and crude materials and fuels.
Source:"Korean Trade and Protectionism," Korean Exchange Bank, *Monthly Review*, Vol. XX, No. 2 (February 1986), p. 10.

tag. This shift appears already to be under way.[31] It is not clear, however, that these changes will necessarily increase the health of the industry and the economy as a whole. Higher-tech toys will mean an increased import content. Furthermore, the higher costs, combined with higher profits, of such toys have already attracted the interests of the big conglomerates to the industry — one of the few previously dominated by small-scale producers.[32] If the *chaebol* come to dominate the toy industry, the result may be the same as with many other South Korean export industries — increasing industrial concentration and import-dependence.

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[31] Although 95 percent of South Korea's toy exports in 1985 were typical low-tech, soft toys, the Korea Toy Industry Cooperative expects electronic toys soon to reach 20 percent of all exports. See "Heart-to-Heart Bear Gears up for Battle," op. cit.

2. Direction of Trade

South Korea's trade has been dominated by its trade with the United States and Japan, which together accounted for three-quarters of South Korea's exports in the 1960s and about one-half in recent years.[33] South Korea has typically run a deficit on its bilateral trade with both countries, but has recently begun to run a surplus with the United States. Table 4-9 shows the destination of South Korea's exports by SITC classification, while Table 4-10 shows the origin of the country's imports by SITC classification. The United States is the dominant source of South Korea's primary product imports, excluding fuels, while Japan is the dominant supplier of intermediate and capital goods. European countries have not been able to compete with the U.S. and Japan in most products in the South Korean market. The fact that less than 50 percent of South Korea's imports of mineral fuels come from the Middle East reflects government efforts to diversify the sources of its crude oil imports to Africa and Southeast Asia, in order to avoid unwarranted dependence on any single geographic region.[34]

a. U.S.-South Korean Trade

The United States has been South Korea's most important trading partner for many years. The American market served as an unmatched training ground for South Korea's infant industries, providing sales opportunities that enabled them to improve their products' quality and develop the economies of scale necessary to make them more competitive. From 1961 to 1985, South Korean exports to the U.S. grew at an average annual rate of 26 percent, while South Korean imports from the U.S. grew at a 22 percent rate. (Data on U.S.-South Korea trade are presented in Tables 4-11 and 4-12.)

Although light industrial products — e.g., textiles, toys, and footwear — still constitute the largest percentage of South Korean exports to the United States, other industrial products — electronics, steel, and ships — now account for some 40 percent (Table 4-13). Electronics have been the fastest growing export. Machinery (including generators, aircraft, sophisticated machinery, and electronics), agricultural products,[35] and chemicals (largely specialty chemicals) make up the bulk of South Korea's imports from the United States (see Table 4-14).[36]

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[32] Lucky-Goldstar, for example, was the firm which produced "Teddy Ruxpin" — a storytelling, animated, stuffed teddy bear — for the U.S. firm Worlds of Wonder, Inc. The bear became the big Christmas seller of 1985 in the U.S. market — racking up sales of US $63 million. Lucky's success has encouraged the other *chaebol* to follow suit. According to the Ministry of Trade and Industry, Samsung, Daewoo, and others are all planning to take the plunge into toys. See: Jesus Sanchez, "'Teddy' Isn't Toymaker's Only Wonder," *USA Today* (November 24, 1986), p. 2B and "Heart-to-Heart Bear Gears up for Battle," op. cit.

[33] "Korean Trade and Protectionism," op. cit.

[34] Ibid.

[35] South Korea has been the fifth largest importer of American agricultural products since 1980. See: Hong Jae-hyong, "Korea-U.S. Economic Ties to Grow," *The Korea Times* (July 4, 1986), p.3.

[36] Ibid.

Table 4-9
DESTINATION OF SOUTH KOREAN EXPORTS BY BRANCHES, 1983

SITC and Branch Descriptions	Total	Percentages of Total									
		Less Developed Countries					Developed Market Economies				Misc.
	(Mil. US $)	Total	Middle East	Saudi Arabia	Asia	Hong Kong	Total	USA	EEC	Japan	
Total	24,445	28.68	10.04	5.88	13.25	3.34	67.38	33.87	12.50	13.92	3.94
0 Food & Live Animals	1,092	18.07	4.67	3.70	7.07	3.43	81.10	11.51	1.58	63.50	0.83
1 Beverages and Tobacco	126	21.12	9.60	8.27	10.69	5.37	77.60	20.35	46.23	5.27	1.28
2 Crude Materials (Excluding Fuels)	292	43.20	1.81	1.51	37.68	7.19	53.70	3.44	4.49	44.93	3.10
3 Mineral Fuels	556	9.09	0.37	—	5.56	0.57	86.40	3.66	0.13	79.61	4.50
4 Animal, Vegetable Oil, Fat	4	44.61	2.56	—	23.55	5.17	32.66	—	—	30.48	22.73
5 Chemicals	677	50.48	1.70	1.17	42.16	4.69	36.86	9.09	4.21	20.18	12.66
6 Basic Manufactures	6,960	44.11	18.29	12.88	20.55	4.41	47.89	24.43	5.19	13.12	8.00
7 Machines & Transport Equipment	7,979	31.96	10.63	4.16	13.89	3.79	65.85	35.86	17.08	4.67	2.19
8 Misc. Manufactures	6,721	9.51	3.75	2.15	2.61	1.61	89.10	51.58	18.07	10.35	1.39
9 Goods Not Classified by Kind	39	20.99	—	—	14.50	—	60.82	21.57	1.79	26.10	18.19

Source: United Nations, *Commodity Trade Statistics 1983*, Statistical Papers Series D, Vol. XXXIII, No. 1-21.

Table 4-11

SOUTH KOREA: TRADE WITH THE UNITED STATES, 1964-1986

(Millions of US Dollars)

Year	Exports Amount	Exports Growth Rate (%)	Imports Amount	Imports Growth Rate (%)	Total Trade Amount	Total Trade Growth Rate (%)	Surplus or Deficit
1964	36	—	202	—	238	—	166
1965	62	+73.3	182	− 9.8	244	+ 2.6	− 121
1966	96	+55.3	254	+39.2	349	+43.2	− 158
1967	137	+43.4	305	+20.3	443	+26.6	− 168
1968	235	+71.4	449	+47.1	684	+54.7	− 213
1969	312	+32.6	530	+18.1	842	+23.0	− 218
1970	395	+26.6	585	+10.3	980	+16.3	− 190
1971	532	+34.6	659	+12.7	1,191	+21.5	− 127
1972	766	+44.0	648	− 1.6	1,414	+18.8	+ 117
1973	963	+25.8	1,202	+85.4	2,165	+53.1	− 239
1974	1,492	+55.0	1,701	+41.5	3,193	+47.5	− 209
1975	1,536	+ 3.0	1,881	+10.6	3,417	+ 7.0	− 345
1976	2,492	+62.2	1,963	+ 4.3	4,455	+30.4	+ 530
1977	3,119	+25.1	2,447	+24.7	5,566	+24.9	+ 671
1978	4,058	+30.1	3,043	+24.3	7,101	+27.6	+1,015
1979	4,374	+ 7.8	4,603	+51.3	8,976	+26.4	− 229
1980	4,607	+ 5.3	4,890	+ 6.2	9,497	+ 5.8	− 284
1981	5,661	+22.9	6,050	+23.7	11,710	+23.3	− 389
1982	6,243	+10.3	5,956	− 1.6	12,199	+ 4.2	+ 287
1983	8,245	+32.1	6,274	+ 5.3	14,520	+19.0	+1,971
1984	10,478	+27.1	6,876	+ 9.6	17,354	+19.5	+3,602
1985	10,754	+ 2.6	6,489	− 5.6	17,243	− 0.6	+4,265
1986[1]	3,874	−64.0	2,053	−68.4	5,927	−65.6	+1,822

Note: 1) January-April 1986.

Sources: Economic Planning Board, Republic of Korea, *Major Statistics of Korean Economy, 1984*; and The Bank of Korea, Republic of Korea, *Monthly Bulletin* (March 1986).

Table 4-12
THE ROLE OF THE U.S. IN SOUTH KOREA'S TRADE, 1964-1985
(Percentages of Total)

Year	ROK exports to US as Share of Total Exports	ROK Imports from US as Share of Total Imports	ROK Trade with US as Share of Total Trade
1964	29.9	50.0	45.5
1968	51.7	30.7	35.7
1972	47.1	25.7	34.1
1976	32.3	22.4	27.0
1980	26.3	21.9	23.9
1981	26.6	23.2	24.7
1982	28.6	24.6	26.5
1983	33.7	24.0	28.7
1984	35.8	22.5	29.0
1985	35.5	20.8	28.1

Sources: Economic Planning Board, Republic of Korea, *Major Statistics of Korean Economy, 1984*; and The Bank of Korea, Republic of Korea, *Monthly Bulletin* (March 1986).

Table 4-13
SOUTH KOREA: EXPORTS TO THE U.S., 1984
(Millions of US Dollars)

Commodity	Value	Share of Total (Percentages)
Total	10,479	100.0
Iron and Steel	875	8.4
Metal	285	2.7
Electronics	2,367	22.6
Maritime	557	5.3
Toys	369	3.5
Textiles	2,585	24.7
Man-made Fibers	246	2.3
Leathers	224	2.1
Footwear	945	9.0
Rubber	224	2.1
Others	1,811	17.3

Source: Korean Exchange Bank, *Monthly Review*, Vol. XX, No. 2 (February 1986), p. 13.

Table 4-14
SOUTH KOREA: IMPORTS FROM THE U.S., 1984
(Millions of US Dollars)

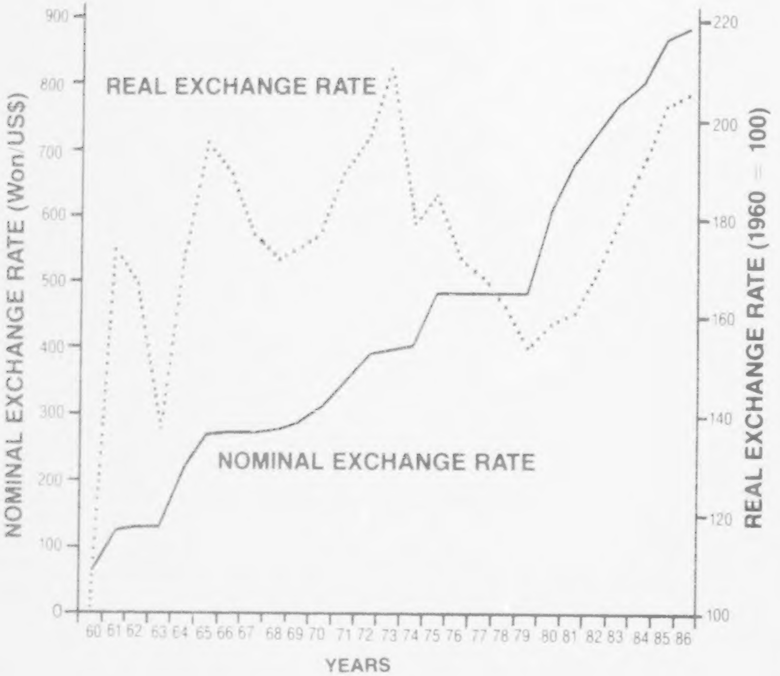
Commodity	Value	Share of Total (Percentages)
Total	6,875	100.0
Agricultural	1,300	18.9
Iron and Steel	457	6.6
Minerals	425	6.2
Machinery	2,610	38.0
Chemicals	1,470	21.4
Textile Materials	537	7.8
Others	76	1.1

Source: Korean Exchange Bank, *Monthly Review*, Vol. XX, No. 2 (February 1986), p. 13.

In 18 of the 25 years between 1961 and 1985, South Korea experienced merchandise trade deficits with the United States. But since 1982, South Korea has begun to run substantial and growing merchandise trade account surpluses with the United States, resulting from rapid export growth and sluggish imports. Although South Koreans are quick to point out that South Korea's surpluses "pale by comparison" with those of other U.S. trading partners, these surpluses have nevertheless led to increasing tensions between the two countries.

In addition to pressuring the South Korean government to open its markets to U.S. exports, Washington has charged that the strong export performance of South Korean firms in the U.S. market is due, in part, to the overvaluation of the South Korean won relative to the US dollar. South Korea's exchange rate policy, on average, has been managed in a fashion designed to maintain and enhance the export competitiveness of South Korean firms. The nominal value of the won relative to the US dollar on average has steadily depreciated since the early 1960s (see Figure 4-4). Only since late 1985 has the won begun to appreciate against the dollar. Clearly, most of the won's decline was necessary to offset the impact of South Korea's high inflation rate on the prices of its export products. Indeed, if relative inflation rates are taken into account, there have been large swings in the average price competitiveness of South Korean goods. In particular, the rapid domestic inflation of the 1970s, combined with a misguided attempt to fix the won-dollar exchange rate from 1974 through 1979, resulted in a substantial real appreciation of the won. Nevertheless, since 1979, the nominal depreciation of the won has more than offset the impact of inflation, resulting in a large real depreciation relative to the US dollar. Obviously this represents in part the general strength of the dollar against the currencies of most of the United States' trading partners. In addition, however, the decline in the won appears to reflect a conscious attempt on the part of South Korean policymakers to regain the price competitiveness they lost in the 1970s. Indeed, despite some limited nominal appreciation in recent months, the won has not strengthened significantly against the dollar, even with the dramatic decline in the value of the dollar against the other major currencies since late 1985.

Figure 4-4
SOUTH KOREAN REAL EXCHANGE RATE
(Won per US Dollar and Index 1980 = 100)



Note: 1986 is the average of the first three quarters.
Sources: IMF, *International Financial Statistics Yearbook 1986*; and IMF, *International Financial Statistics — January 1987*, Vol. XL, No. 1.

In 1986, the won appreciated (on a nominal basis) 3.3 percent against the dollar. If inflation in both the United States and South Korea continues at about the current rate and the pace of the nominal appreciation of the won is maintained, the won should appreciate significantly in real terms in 1987. It is not clear, however, that the pace will satisfy American officials. Reportedly, the South Korean government is considering a gradual 5 percent appreciation of the won in 1987, but Washington is believed to be pressing for an appreciation of more than 10 percent.[37] The South Koreans appear determined to avoid any drastic appreciation of the won, because of concern that it may seriously hurt the country's exports. Nevertheless, American pressure on this issue will probably increase as 1987 progresses.

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[37] "South Korea's Surplus Widens to Record," *The Asian Wall Street Journal* (January 19, 1987).

b. *Japanese-South Korean Trade*

Trade between South Korea and Japan has grown rapidly over time (Table 4-15), but Japan's share of South Korean trade has declined substantially since the mid-1960s (Table 4-16). Although South Korea's overall trade deficit has been reduced, its deficit with Japan has grown and has remained the equivalent of about four percent of South Korea's GNP. South Korea's trade deficit with Japan is expected to increase from US $3 billion in 1985 to US $4.5 billion in 1986.[38]

The large persistent deficits in South Korea's trade with Japan reflect long-standing Japanese industrial and trade practices. Through a complex of formal and informal barriers, the Japanese have consistently provided strong protection to domestic producers of finished goods, particularly consumer goods, while allowing free imports of most raw materials and only slowly increasing imports of semi-manufactures and components. Since South Korea largely exports finished goods, it is at a disadvantage. The South Koreans have estimated that 46.5 percent of their exports to Japan (US $2.2 billion worth) faced restrictions in 1984. A particular problem is administrative guidance and quality requirements that affected 1.6 billion worth of South Korean exports in 1984. Most of these restrictions were imposed by Japan.[39] Although Japan reduced duties on almost 2,000 products in 1985, these reductions were aimed at satisfying the concerns of the United States and the other industrialized countries. The changes affected only 24 categories of imports from South Korea. The average duty on Japanese imports from South Korea is 10 percent, compared to an overall average Japanese tariff rate of 3 percent.[40] As a result of these restrictions, the main thrust of South Korean exports has been toward the U.S. market, while exports to Japan have been sluggish.

Still, other factors were also important in restricting South Korea's export expansion into the Japanese market. South Korea's price competitiveness in the Japanese market has clearly declined. A recent study indicates that, although the average price level of South Korean goods is 40 percent lower than that of Japanese goods, it exceeds those of Taiwan and Singapore by 5 percent and that of the P.R.C. by 20 percent.[41] In addition, the South Korean government let the won fluctuate in real terms relative to the yen, as it depreciated relative to the US dollar. This had mixed effects on South Korea's potential exports to Japan during the period of the strong dollar, but may very well have contributed to the decline in the market share of South Korean products in Japan since the late 1970s (see Table 4-17).

Another contributing factor in this decline may have been South Korea's strategy of exporting mostly final products rather than, like Taiwan, components or intermediate goods. Moreover, it is generally believed that Japanese perceive South Korean goods to be of inferior quality.[42] South Korean exports to Japan might be increased if South

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[38] Laxmi Nakarmi, op. cit.

[39] A more detailed examination of the impact of protectionism on South Korean exports may be found in: Maurice Ernst and Jimmy W. Wheeler, *The Impact of Industrial Country Protectionism on Selected LDCs*, HI-3863-RR (Indianapolis, IN: Hudson Institute, January 1987).

[40] Mark Michelson, "Japan Bashing, Korean Style," *The Asian Wall Street Journal* (May 19, 1986).

[41] "Korean Trade and Protectionism," op. cit.

[42] Ibid., pp. 15-16.

Table 4-15
SOUTH KOREA: TRADE WITH JAPAN, 1964-1986
(Millions of US Dollars)

Year	Exports Amount	Exports Growth Rate (%)	Imports Amount	Imports Growth Rate (%)	Total Trade Amount	Total Trade Growth Rate (%)	Surplus or Deficit
1964	38	——	110	——	148	——	− 72
1965	45	+16.8	175	+58.9	220	+48.1	− 130
1966	65	+45.5	294	+68.0	359	+63.3	− 229
1967	85	+30.5	443	+50.8	528	+47.1	− 358
1968	100	+17.7	623	+40.7	723	+37.0	− 523
1969	113	+13.6	754	+21.0	867	+20.0	− 640
1970	234	+106.8	809	+ 7.4	1,044	+20.4	− 575
1971	262	+11.8	954	+17.8	1,215	+16.5	− 692
1972	410	+56.4	1,031	+ 8.1	1,441	+18.5	− 622
1973	1,169	+185.5	1,727	+67.5	2,896	+101.0	− 557
1974	1,380	+18.0	2,620	+51.8	4,000	+38.1	−1,241
1975	1,293	− 6.3	2,434	− 7.1	3,726	− 6.8	−1,141
1976	1,802	+39.3	3,099	+27.3	4,901	+31.5	−1,297
1977	2,148	+19.2	3,927	+26.7	6,075	+24.0	−1.778
1978	2,627	+22.3	5,981	+52.3	8,609	+42.0	−3,354
1979	3,353	+27.6	6,657	+11.3	10,010	+16.3	−3,304
1980	3,039	− 9.4	5,858	−12.0	8,897	−11.1	−2,818
1981	3,503	+15.2	6,373	+ 8.8	9,876	+11.0	−2,870
1982	3,388	− 3.3	5,305	−16.8	8,693	−12.0	−1,917
1983	3,404	+ 0.4	6,234	+17.5	9,638	+10.9	−2,831
1984	4,610	+35.4	7,641	+22.6	12,250	+27.1	−3,032
1985	4,543	− 1.4	7,560	− 1.1	12,104	− 1.2	−3,017
1986[1]	1,134	−75.0	3,122	−58.7	4,256	−64.8	−1,988

Note: 1) January-April 1986.

Source: Economic Planning Board, Republic of Korea, *Major Statistics of Korean Economy*.

Table 4-16
THE ROLE OF JAPAN IN SOUTH KOREA'S TRADE, 1964-1985
(Percentages of Total)

Year	ROK Exports to Japan as Share of Total Exports	ROK Imports from Japan as Share of Total Imports	ROK Trade with Japan as Share of Total Trade
1964	32.1	27.1	28.3
1968	21.9	42.6	37.7
1972	25.2	40.9	34.8
1976	23.4	35.3	29.8
1980	17.4	26.3	22.4
1981	16.5	24.4	20.8
1982	15.5	21.9	18.9
1983	13.9	23.8	19.0
1984	15.8	24.9	20.5
1985	15.0	24.3	19.7

Source: Calculated from data in Table 4-15.

Table 4-17
MARKET SHARES IN JAPAN'S IMPORT MARKET, 1977/80/83
(Percentages of Total)

	1977	1980	1983
South Korea	8.5	6.9	6.4
Taiwan	3.6	4.0	4.2
Singapore	2.1	3.0	3.3
PRC	1.6	1.4	1.6

Source: "Korean Trade and Protectionism," Korean Exchange Bank, *Monthly Review*, Vol. XX, No. 2 (February 1986), p. 15.

Korea were to shift to a component strategy. Nevertheless, unless Japanese barriers are reduced, South Korean sales to Japan will probably remain predominantly lower value-added agricultural, marine, and light industrial products, and, therefore, are likely to remain sluggish (Table 4-18).

South Korea has always imported the bulk of its intermediate and capital goods from Japan — textile machinery and synthetic fibers in the 1960s, steel, engines, and heavy electrical machinery in recent years. Currently, Japanese exports to South Korea consist largely of electric components, chemicals, machinery, and steel products (see Table 4-19). Although the overall share of Japanese products in South Korea's total imports has declined over time, the Japanese share of South Korean capital goods

Table 4-18
SOUTH KOREAN EXPORTS TO JAPAN, 1984
(Millions of US Dollars)

Commodity	Value	Share of Total (Percentages)
Food & Direct Consumers	299	17.4
Crude Materials and Fuel	816	17.7
Light Industrial Products	1,426	31.0
Textiles	1,026	22.3
Leather, Rubber & Paper	22	0.5
Wood & Cork Manufactures	13	0.3
Non-Metallic Mineral Manufactures	87	1.9
Footwear	122	2.7
Misc. Manufactured Articles	156	3.4
Heavy Industrial Products	1,562	33.9
Chemicals	170	3.7
Iron, Steel & Metal Products	515	11.2
Machinery & Transport Equip.	780	16.9
Ships & Other Vessels	159	3.5
Others	98	2.1
Total	4,602	100.0

Source: Korean Exchange Bank, *Monthly Review*, Vol. XIX, No. 9 (September 1985).

imports remains very high (see Table 4-20).[43] Japan still supplies 40 percent of South Korea's machinery and 60 percent of its components imports.[44] The dominance of Japan reflects the price and quality competitiveness of Japanese products, South Korean dependence on Japanese technology and foreign financing, as well as Japan's geographical proximity and cultural familiarity with South Korea. The Japanese competitive edge in South Korea is such that even the large appreciation of the yen has not yet cut the volume of machinery imports from Japan. Indeed, the increase in overall South Korean exports due to the depreciation of the won has led to increases in the volume of capital goods imports, which have come largely from Japan.[45]

The government has put pressure on South Korean firms to change their buying habits, but these efforts have not met with great success as yet. Nevertheless, some diversification is clearly essential — for both economic and political reasons. The country's bilateral deficit with Japan has, like American market-opening pressures, become a hot political issue in South Korea. It has revived South Korean memories of

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[43] Until the mid-1970s, the trade deficit with Japan was not a critical problem. The heavy industry program in the 1970s, however, greatly increased South Korea's demand for intermediate products, components, and capital goods. As a result, South Korea's deficit with Japan increased many times in just five years — from US $557 million in 1973 to US $3.3 billion in 1978.

[44] Paul Ensor, op. cit.

[45] Officials estimate that around a quarter of the 40.6 percent growth in imports from Japan in the first seven months of 1986 was due to volume increases; the rest was due to rising [illegible]. See: ibid., p. 63.

Table 4-10
ORIGIN OF SOUTH KOREAN IMPORTS BY BRANCHES, 1983

SITC and Branch Descriptions	Total	Percentages of Total									
		Less Developed Countries					Developed Market Economies				Misc.
	(Mil. US $)	Total	Middle East	Saudi Arabia	Asia	Hong Kong	Total	USA	EEC	Japan	
Total	26,192	32.2	13.7	7.7	48.6	0.8	63.9	24.0	8.3	23.7	4.9
0 Food & Live Animals	1,711	15.0	0.03	—	9.9	0.3	82.7	62.6	1.0	0.9	2.3
1 Beverages and Tobacco	30	24.1	20.0	—	22.0	—	75.9	29.7	44.2	1.9	—
2 Crude Materials (Excluding Fuels)	3,463	33.2	0.3	0.06	30.0	0.7	64.9	41.7	1.8	5.9	1.9
3 Mineral Fuels	6,975	74.6	48.5	27.90	65.4	—	12.4	4.6	0.5	1.5	13.0
4 Animal, Vegetable Oil, Fat	141	45.6	—	—	50.5	—	54.0	28.3	2.2	5.2	0.4
5 Chemicals	2,242	5.0	0.4	0.07	41.4	0.2	93.3	27.3	20.3	38.8	1.7
6 Basic Manufactures	3,024	12.7	1.9	0.20	63.8	1.1	84.7	14.4	8.8	55.0	2.6
7 Machines & Transport Equipment	7,585	12.7	1.6	0.70	46.2	1.9	86.5	27.2	16.1	37.8	0.8
8 Misc. Manufactures	918	3.2	0.1	0.10	55.4	1.5	96.1	28.8	11.3	52.3	0.7
9 Goods Not Classified by Kind	102	1.8	—	—	8.9	—	23.3	13.6	20.1	7.1	74.8

Source: United Nations, *Commodity Trade Statistics 1983*, Statistical Papers Series D, Vol. XXXIII, No. 1-21

Table 4-19
SOUTH KOREAN IMPORTS FROM JAPAN, 1984
(Millions of US Dollars)

Commodity	Value	Share of Total (Percentages)
Food & Direct Consumers	28	0.4
Crude Materials and Fuel	294	3.8
Light Industrial Products	1,052	13.8
Textiles	413	5.4
Paper, Paperboard	42	0.6
Non-Metallic Mineral Manufactures	177	2.3
Misc. Manufactured Articles	420	5.5
Heavy Industrial Products	6,266	82.0
Chemicals	1,045	13.7
Iron & Steel	1,000	13.1
Non-ferrous Metals	130	1.7
Metal Manufactures	146	1.9
Non-electric Machinery	1,708	22.4
Electrical Machinery & Appliances	1,400	18.3
Transport Equip.	349	4.6
Ship & Other Vessels	196	2.6
Others	489	6.4
Total	7,640	100.0

Source: Korean Exchange Bank, *Monthly Review*, Vol. XIX, No. 9 (September 1985)

Table 4-20
SOUTH KOREAN CAPITAL GOODS IMPORTS FROM MAJOR COUNTRIES, 1981-1984
(Percentages of Total)

	1981	1982	1983	1984
Japan	44.6	40.3	45.0	46.3
United States	30.4	35.6	34.7	29.5
West Germany	7.6	7.8	5.3	5.5
United Kingdom	3.4	3.5	2.9	2.0
France	1.3	1.8	1.5	0.8
Others	12.7	11.0	10.6	15.9

Source: "Korean Trade and Protectionism," Korean Exchange Bank, *Monthly Review*, Vol. XX, No. 2 (February 1986), p. 15.

Japanese colonial exploitation of their country and led to editorials in the popular press attacking Japan as an unequal trading partner. Of course, the ideal solution would be to devise a method of simultaneously addressing both the U.S. concerns and South Korea's own problems with Japan. The feasibility of such an approach will be examined later.

D. Foreign Direct Investment

Foreign direct investment has played a relatively minor role in South Korea's development. During the 1955-1980 period, foreign direct investment accounted for less than 5 percent of foreign capital inflows.[46] In general, South Korean policymakers have found equity financing less attractive than debt financing. Since 1980, however, their attitudes have begun to change. The South Koreans have become convinced that massive foreign capital and technology inflows are necessary for them to be able to continue to compete in the future and to support their industrial restructuring plans. In addition, they are hopeful that increased foreign investment will help alleviate some of the current tensions in their relationship with the United States and ease foreign borrowing needs. At the same time, however, domestic opposition to economic liberalization remains strong and will continue to pose serious constraints on the options of reform-minded officials.

Some of the more important efforts by the South Korean government to improve the foreign investment climate occurred in the early 1980s. In 1980, the government for the first time allowed foreign investors to assume a 100 percent equity share in many industries. In addition, since 1982, the government has greatly expanded the number of sectors open to foreign investment. In 1984, the government adopted a negative list system for investment approval.[47] In theory, this new system is intended to ease bureaucratic disincentives to investment. Under this system, foreign investors do not need to obtain explicit government approval for their project, unless the investment is in an industry specified on the negative list. Foreign firms may invest in all other categories, with no official equity restrictions. In practice, however, foreign businesses report facing numerous formal and informal barriers, with South Korean officials only permitting wholly foreign-owned ventures in priority sectors — primarily high-technology industries. Specific government incentives to invest also tend to be limited to these priority areas.[48] Still, the new system is a considerable improvement. The government has reduced the number of restricted industries on the negative list every year. In 1985, for example, an additional 102 industries were liberalized — i.e., taken off the list. By the end of 1985, 76 percent of industrial subsectors (by number, not value) had been liberalized. By 1988, the government has indicated that only 10 percent of all industries will be on the negative list.[49]

These reforms have led to a significant increase in foreign direct investment; nevertheless, South Korea still trails its rival Taiwan in attracting investors. Japan has been the leading investor, followed by the United States. Together, they account for over 80 percent of the total (see Table 4-21). The remaining 20 percent consists of investments made by firms from 30 other countries, primarily from Western Europe.[50] Most investments have been made in the manufacturing and service industries, with about 65 percent going to the former. In particular, the chemical, electronics, and electronic machinery areas have received the largest amounts of foreign investment (see Table 4-22). Outside of manufacturing, the hotel business accounts for about 24 percent of investments.[51] Hotel investment has, in fact, grown enormously in recent years, in response to increased Japanese tourism and the expected high turnout for the Olympics, which are scheduled to be held in Seoul in 1988 (see Table 4-23). American investment, for its part, has remained heavily concentrated in manufacturing — most notably in the areas of electronics, machinery, chemicals, and transportation equipment (see Table 4-24).

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[46] Yung Chul Park, op. cit., p. 294.

[47] In 1984, the government also removed all restrictions on the repatriation of principal and the remittance of dividends and reduced the limitations on foreign investors wishing to reinvest their earnings in another field.

[48] "Korea and Taiwan Compete for Investment," *Business Asia* (May 17, 1985), p. 154.

[49] Economic Planning Board, Republic of Korea, *Korea's Economic Policy Reforms and Current Concerns with the U.S.* (January 1986), p. 5.

The significance of increased foreign direct investment for South Korea's future economic development remains uncertain. In particular, the likely contribution of foreign investors to South Korea's technological development is hotly debated. It appears that the firms of the various industrialized countries have different technology transfer policies. A survey of Japanese and American affiliates in South Korea suggests that the U.S. transfers more patented technology to South Korea (implying more sophisticated technology), while Japan tends to provide more general industrial experience involving person-to-person contact. In both cases, the affiliates considered that their foreign partner contributed more hard technology than know-how.[52] Still, U.S. firms seem to receive more favorable ratings overall than their Japanese counterparts. While this may be an advantage for U.S. firms in the future, the transfer of technology through foreign investment presents a mixed picture (see the Data Appendix, Table VII).

In recent years, South Koreans themselves have begun to invest abroad. Initially, these investments were heavily concentrated in the Middle East and Southeast Asia, and were intended to secure a stable supply of resources for South Korea's manufacturing industries. More recently, however, South Koreans have begun to invest very heavily in the manufacturing sector in North America — most notably in the United States (see Table 4-25). In addition to the obvious economic motivations, these investments have been encouraged by the government to relieve trade tensions between the United States and South Korea. To encourage overseas investment by South Korean firms, the government has substantially reduced its earlier restrictions, which were prohibitively severe.[53] Such steps are a positive and effective means of reducing South Korea's trade problems with the United States. Other steps are also necessary. Possible approaches are examined in the next section.

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[50] "Foreign Investment in Korea on the Rise. . .," *Business Journal* (Seoul), Vol. 3, No. 15 (1986), p. 22.
[51] Ibid.
[52] Chung H. Lee, "Transfer of Technology from Japan and the United States to Korean Manufacturing Industries: A Comparative Study," *Hitotsubashi Journal of Economics*, Vol. 25 (1984), pp. 125-136.
[53] Economic Planning Board, Republic of Korea, *Korea's Economic Policy Reforms and Current Concerns with the U.S.* (January 1986), p. 5.

Table 4-21
FOREIGN INVESTMENT IN SOUTH KOREA, 1964-1985
(Millions of US Dollars)

Period	Foreign Investment Arrivals	Foreign Investment Approvals						
		Total Amount	Number of Investments	of which			
				USA		Japan	
				Amount	%	Amount	%
1964-66	18.6	22.1	13	21.9	98.9	1.0	3.1
1967-71	96.4	72.7	164	12.4	17.1	40.8	56.1
1972-76	557.0	565.2	450	68.0	12.0	377.0	66.7
1977-83	733.8	1,043.3	327	369.1	35.4	425.0	40.7
1984		419.0	103	190.9	45.6	163.8	39.1
1985		531.7	127	109.1	20.5	363.4	68.3
1-4/86		94.5	38.4	40.6	33.1	35.0	
Total	1,405.8	2,748.5	1,184	809.8	29.5	1,404.1	51.1

Sources: Economic Planning Board, Republic of Korea.,*Major Statistics of Korean Economy 1984*; Ministry of Finance, Republic of Korea, *Monthly MOF Bulletin* (May 1986).

Table 4-22
FOREIGN DIRECT INVESTMENT IN SOUTH KOREA, BY INDUSTRY, 1962-1984
(Millions of US Dollars)

Sector	Total	Share (Percentages of Total)
Agriculture	15,615	0.7
Mining	3,607	0.2
Services	714,636	33.7
Manufacturing	1,389,389	65.4
Food Processing	67,161	3.2
Textiles, shoes, garments	71,742	3.4
Electric, electronic goods	330,363	15.6
Chemicals	333,645	15.7
Machinery, instruments	226,823	10.7
Basic Metals	70,078	3.3
Transport equipment	66,566	3.1
Other Manufacturing	223,011	10.5
TOTAL	2,123,247	100.0

Source: *Business Asia* (May 17, 1985), p. 154.

Table 4-23
SOUTH KOREA: FOREIGN INVESTMENT BY INDUSTRY, 1980-APR. 1986
(Millions of U.S. Dollars)

Industry	1980	1981	1982	1983	1984	1985	Jan.- Apr. 1986
Chemical	36.0	54.3	41.3	7.6	6.7	44.8	6.1
Pharmaceutical	—	5.3	24.2	20.8	6.4	11.3	10.3
Metal	4.5	7.0	2.9	1.8	5.1	2.6	2.5
Machinery	5.0	2.0	9.8	5.7	131.5	50.7	20.7
Electronics	17.8	40.6	19.2	41.4	67.5	55.8	6.4
Hotels	5.7	7.1	28.1	155.7	118.4	312.3	30.8
Others	34.9	4.8	13.6	18.8	83.4	54.2	17.7
Total	103.9	121.1	139.1	251.8	419.0	531.7	94.5

Note: On an approval basis.

Sources: Ministry of Finance, Republic of Korea, *Monthly MOF Bulletin*, No. 34 (May 1986); and Ministry of Finance, Republic of Korea, *MOF Bulletin*, No. 14 (September 1984).

Table 4-24
U.S. INVESTMENTS IN SOUTH KOREA BY INDUSTRY
(As of the end of 1984)

Type of Industry	No. of Projects	Value (Millions of US Dollars)
Agricultural & Marine	11	3.9
Manufacturing	164	582.6
Electric & Electronic	47	172.9
Machinery	17	125.8
Chemical	24	102.4
Transportation Equipment	3	49.6
Medicine	14	39.8
Food	14	23.5
Others	45	68.6
Social Overhead Capital & Other Services	32	75.9
Finance	2	26.1
Construction	21	27.0
Transportation Storage	6	14.3
Others	3	8.5
Total	207	662.4

Source: Economic Planning Board, Republic of Korea, *Korea's Economic Policy Reforms and Current Concerns with the U.S.* (January 1986).

Table 4-25
SOUTH KOREA: OUTFLOW OF OVERSEAS INVESTMENT[1]
(Cumulative through August 1986 in Millions of US Dollars)

By Region	Value	Percentages of Total
Total	1,059.0	100.0%
Southeast Asia	174.7	16.5
Middle East	196.0	18.5
North America[2]	374.2	35.3
Latin America	141.0	13.3
Europe	16.7	1.6
Africa	31.4	3.0
Pacific	125.0	11.8
By Industry	**Value**	**Share**
Total	1,059.0	100.0%
Mining	403.7	38.1
Forestry	110.8	10.5
Manufacturing[3]	293.4	27.7
Construction	55.2	5.2
Trade	95.8	9.0
Others	100.1	9.4

Notes: 1) On an approval basis. 2) US $172.8M — or 46.2 percent of total — was invested here from January-August 1986. 3) US $165.1M — or 56.3 percent of total — was invested here from January-August 1986.

Source: Ministry of Finance, Republic of Korea, *Monthly MOF Bulletin*, No. 39 (October 1986).

E. Policy Approaches

U.S.-South Korean relations are becoming increasingly tense as a result of the growing number of trade disputes between the two countries. Such increasing hostility serves the interests of neither country. Both countries' fundamental interests lie in preserving the bilateral relationship and the mutual goodwill that is necessary to make it work. While South Korea cannot alone solve the problems that exist, there are some concrete steps that it can take to help reduce tensions. The government has, in fact, already taken some of these steps. However, the government faces growing domestic resistance to economic liberalization, which is caused in part by protectionism in the United States and in other industrial countries.

South Korean export growth has been so rapid that it has triggered a wide range of protectionist responses in industrial country markets. Some 36 percent of South Korea's total exports faced various types of restrictions in those markets in 1985, and the trend has been toward expanding barriers over time.[54] In terms of the share of export products restricted (by value), the United States is the most protected market (about 43 percent of all South Korean exports to the U.S. in 1985 and about 54 percent in 1984 faced some form of trade barrier.[55] Although most of these barriers have not been serious constraints to export growth in the past, their growing number and stringency have become matters of great domestic concern in South Korea.[56]

From the American point of view, many of the barriers of concern to the South Koreans (e.g., countervailing and antidumping duties) are valid U.S. responses to unfair South Korean trading practices. The South Koreans, for their part, make no such distinction. They view countervailing duties and the like mainly as gray area substitutes for more blatant protectionist devices that probably would not meet GATT standards. Whatever the "true" cause of such trade restrictions in the United States, as long as American trade deficits are large, both overall and with South Korea, such practices are likely to proliferate.

Indeed, American trade officials have been using protectionism and threats thereof as a negotiating mechanism in their efforts to improve access to the South Korean market for U.S. firms. The present list of demands for market opening on specific products, which began in 1983, now contains some 50 items considered areas of potential export growth for the U.S. in South Korea.[57] The United States has also begun negotiating to open the South Korean services market — notably the insurance, banking, communications, accounting, and information services industries. The U.S. government has also urged the South Korean government to liberalize its capital markets and to improve copyright, patent, and trademark protection within South Korea.

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[54] Korea Traders Association, "Overview of the Import Restriction Measures by Advanced Countries Against Korea's Exports" (1986), p. 2.

[55] Chung-soo Kim, *Effects of Neo-Protectionism on Korean Exports* (Seoul, Korea: KIET, May 1986), pp. 44-55. These measures can be deceptive, since very stringent or exclusionary restrictions in a market reduce the export value to such an extent that the share declines.

[56] South Korean firms have been so flexible and the country has grown so fast that the barriers still do not represent major losses to the economy in terms of output or export revenues. However, the value of losses has clearly risen. See M. Ernst and J.W. Wheeler, *The Effects of Industrial Country Protectionism on Selected Developing Countries*, op. cit.

American pressures to achieve these goals have provoked strong nationalistic responses within South Korea. As mentioned above, economic liberalization is increasingly being met by domestic political opposition within South Korea. This opposition comes from various groups with quite different motivations. For some, attacking economic liberalization is a way of indirectly attacking the political legitimacy of the Chun regime. Hence, the underlying motivation is political. Others oppose economic liberalization because they see it as directly harming their economic interests. The current level of protection in the South Korean economy has doubtless protected some relatively inefficient or unsophisticated firms from their more efficient and sophisticated competitors. As more sectors of the economy become open, some parts of South Korean industry will doubtless be adversely affected — e.g., the smaller financial institutions, insurance companies, manufacturing concerns, etc. Further, regardless of the basic motivation for opposing liberalization, U.S. pressure to liberalize the economy tends to be resented, and efforts by the Chun government to respond to U.S. pressure are sometimes characterized by the opposition as caving in to American demands. Again, this argument is used to challenge the government's legitimacy. Meanwhile, South Korean government officials often complain that U.S. trade officials fail to appreciate the far ranging impact that American pressure for reform has within South Korean society. Excessive and overt American pressure can destabilize the Chun government and contribute to domestic tension. Nevertheless, such pressures are unlikely to disappear as long as large American trade deficits persist. Practical and effective South Korean responses to American concerns must therefore be devised.

In order to ease tensions with the United States, South Korea must reduce its dependence on the American market and import more American-made goods. However, in order to implement such a program successfully without injuring their own economy, the South Koreans must simultaneously move to reduce their imports from Japan — either through import-substitution, import-diversification, or both — while also increasing their exports to that market. If they do not address American concerns, South Korean policymakers run the risk of losing part of their biggest market. Yet such actions must also be within the context of dealing with their own macroeconomic and trade imbalances. In fact, it would appear that the South Koreans are moving in this direction — if perhaps a bit slower than the Americans might prefer.

The import-liberalization program is the most publicized example. As mentioned above, a program of planned import-liberalization to be carried out in incremental stages was begun in the early 1980s. The program was heralded by the South Korean government as a means of improving the production efficiency, quality, and price of South Korean products, by inducing greater foreign competition into the domestic market. At the same time, the program also addressed the concerns of South Korea's major trading partners, who had been pressuring the South Koreans to open their market. As recently as 1979, only 68 percent of all products were allowed to enter South Korea without prior import licensing.[58] From 1980 to 1985, the import-liberalization ratio rose from 68.6 percent to 87.7 percent.[59] The ratio is not constant across all industries, however. Industries have been liberalized at differing speeds and degrees of openness. Some — such as chemicals, paper, ceramics, iron and steel, and textiles — have a ratio above the average, while others — such as electronics, primary products, and food — are more restricted (see Table 4-26). Moreover, this import ratio refers to trade categories, not the value of trade. In value terms, liberalization is much lower.[60] It is intended that the import-liberalization process will reduce South Korea's import restrictions to a level equivalent to those of the industrialized countries during 1986-88.

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[57] "Market Opening Gains Momentum," *The Korea Herald* (June 29, 1986).

Besides the import licensing procedures, other quantitative restrictions are also being liberalized. According to the MTI Import Liberalization Plan for 1986-88, restrictions will be removed on 603 items over the next three years. Items included are consumer goods, electrical equipment, passenger vehicles and engines, and agricultural goods. In addition, the government appears to be trying to correct the misuse of special laws to restrict trade. The 1984 Import Liberalization Plan asserts that the special laws for health, safety, and national security will be used in line with their original purposes.[61]

South Korea's efforts to reduce its non-tariff barriers have been accompanied by tariff reductions as well (Table 4-27). The average tariff rate has fallen from 31.8 percent in 1980 to 18.7 percent today. By 1988, it is supposed to be reduced to 16.9 percent. At that time, a standard 20 percent tariff will be applied to about two-thirds of all manufactured goods.[62]

The revised tariff system, however, has some "over-administered" policy characteristics that suggest a continuation of the South Koreans' cautious attitude towards market opening. The plan provides the South Korean government with a temporary "adjustment tariff" capability, in addition to the emergency tariffs already in effect. This new tariff allows the government to impose a temporary tax of up to 100 percent on top of the emergency tariff, to curb potential import surges due to import-liberalization. A newly importable good can be taxed as high as 200 percent when the adjustment tariff, emergency tariff, and general tariffs are added together.[63]

In addition, American trade officials have pointed out that South Korea's tariff reductions affect mainly raw materials and components imported for eventual re-export. Tariffs remain high on products that the United States wants to export to South

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[58] "Korean Trade and Protectionism," op. cit.

[59] The import liberalization ratio measures the number of automatically approved items to the total number of commodity categories.

[60] See discussion in Adrienne A. Kearney and Perry L. Wood, "South Korea: The Politicization of Trade Policy," HI-3836-P (Indianapolis, IN: Hudson Institute, 1986), pp. 103-134.

[61] "Import Ban on 302 More Items to Lapse July '86," *Korea Newsreview* (November 2, 1985), pp. 10-11.

[62] "Market Opening Gains Momentum," op cit.

[63] U.S. International Trade Commission, Report to the Subcommittee on Trade, Committee on Ways and Means, U.S. House of Representatives, on Investigation No. 332-162 Under Section 332(b) of the Tariff Act of 1930, *Foreign Industrial Targeting and its Effects on U.S. Industries Phase III: Brazil, Canada, the Republic of Korea, Mexico, and Taiwan* (Washington, D.C.: U.S. I.T.C., 1985), p. 135.

Table 4-26
SOUTH KOREA'S IMPORT LIBERALIZATION PROGRAM, 1984-1988

Category	No. of Subcategories		No. of Subcategories to be Liberalized					Still Restricted
	Total	Restricted (1983)	1984	1985	1986	1987	1988	(1988)
Primary Products Food & Drinks	1,386	368 (73.4)	30 (75.6)	30 (77.8)	12 (80.1)	—	—	276
Chemicals, Paper & Ceramics	2,182	119 (94.5)	10 (95.0)	14 (95.6)	46 (97.7)	35 (99.4)	— —	14
Steel & Metal Products	802	74 (90.8)	16 (92.8)	17 (94.9)	31 (98.8)	6 (99.5)	— —	4
Machinery	1,414	435 (69.2)	123 (77.9)	75 (83.2)	86 (89.1)	154 (93.1)	95 (99.9)	2
Electrical Machinery & Electronics	495	241 (51.3)	51 (62.0)	59 (73.9)	64 (87.0)	48 (96.6)	17 (100.0)	0
Textiles	547	104 (81.0)	6 (82.1)	9 (83.7)	17 (86.6)	12 (89.0)	— —	60
TOTAL	7,915	1,560 (80.3)	352 (84.7)	237 (87.7)	306 (91.6)	174 (93.8)	112 (95.2)	356

Note: 1) Figures in parentheses denote the Import Liberalization ratios (percent).

Source: "Korean Trade and Protectionism," Korean Exchange Bank, *Monthly Review*, Vol. XX, No. 2 (February 1986), p. 18.

Table 4-27
SOUTH KOREAN AVERAGE GENERAL TARIFF RATES
(Percentages)

	1983	1984	1988
All Categories	22.6	20.6	16.9
Raw Materials	11.9	10.6	9.5
Intermediate Inputs	21.5	18.7	17.1
Finished Products	26.4	24.7	18.9

Source: "Korean Trade and Protectionism," Korean Exchange Bank, *Monthly Review*, Vol. XX, No. 2 (February 1986), p. 18.

Korea for domestic use, such as processed agricultural products and automobile parts. As a result, import-liberalization to date has had limited impact on many areas of the South Korean economy in which U.S. firms are likely to be the most competitive. There are strong impediments to liberalizing many of these sectors. For example, agricultural interests — which form a key part of the government's electoral constituency — would oppose liberalized agriculture imports. It was for this reason that the government kept secret until recently its agreement with the United States to open the tobacco market.[64] Once announced, the decision provoked strong domestic criticism and prompted a boycott campaign by the South Korea Consumers' Union and the Cigarette Retailers Association, even though imports are limited to only one percent of the total domestic market.[65] Clearly, the South Koreans have to move very cautiously and gradually in implementing import-liberalization in such areas. Nevertheless, some action is necessary.

To date, the impact of import-liberalization on South Korea's trade imbalance has been perverse. Japan has, in fact, been the main beneficiary of import-liberalization. This is because almost all capital goods imports have been included in the liberalization program, and Japanese products in this category tend to enjoy a major competitive edge over American-made goods.[66] Products in which the United States is more competitive need to be liberalized, in order to address U.S. concerns effectively. At the same time, some actions need to be taken to lessen South Korea's dependence on Japan for capital goods.

In order to lessen the country's import dependence on Japan, the South Korean government has begun to implement a heavily publicized import-substitution, or "localization," program. The aim of the program is two-fold. Its immediate aim is to reduce South Korea's imports of Japanese intermediate and capital goods and thereby shrink the trade deficit, while maintaining the competitiveness of South Korean products overseas.[67] Its long-term goal is to restructure South Korea's industries away from their assembly bias towards more integrated production, through the development of viable parts and components industries. According to the Economic Planning Board (EPB), the government had dispersed, in the first eight months of 1986, 380 billion won (US $431.8 million) in loans intended to increase local production of parts and machines that are currently imported. Most of this money went to small- and medium-size firms, since they dominate the parts and components field.[68]

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[64] The government made the decision to allow the importation of foreign cigarettes in June 1985, but kept it secret until July 1986, for fear of political reaction.

[65] "Tobacco: A Trade Tightrope," *The Asian Wall Street Journal* (September 11, 1986), p. 11; "Korea, U.S. Agree on Insurance, Copyright, Tobacco Protection," *The Asian Wall Street Journal* (July 22, 1986); and Joseph Manguno, "Korea's Cigarette Decision Kept Secret," *The Asian Wall Street Journal* (August 27, 1986), p. 6.

[66] "Korean Trade and Protectionism," op. cit.

It seems doubtful, however, that the localization program will be successful in changing the basic structure of South Korea's trade and industry rapidly. The task is simply too large. Current localization rates are extremely low for some products (see Table 4-28). Furthermore, the new policies tend to ignore the underlying reasons for the underdevelopment of the parts and components industry in South Korea in the first place. Namely, the small size of the parts makers limits their access to the capital necessary to expand to take advantage of market opportunities. Recent changes in bank lending policies to help small- and medium-sized industry are a step in the right direction, but capital remains limited and difficult to get. Furthermore, a lack of adequate scientific and engineering personnel weakens the smaller firms' ability to digest and implement new technology quickly. As discussed above, the ability to import duty-free those inputs needed for export production has created dual markets with differing price structures. Consequently, the small parts and components makers tend to be neither price nor quality competitive. Although quality considerations could be met in time, many are concerned that domestic parts and components will always be more expensive than comparable imports, due to the small size of the domestic market. Some government economists argue that economies of scale can be achieved through export; however, others discount such a possibility because of Japanese domination.[69] As long as local producers cannot guarantee quality and reliability at internationally competitive prices, the big companies will continue to import their inputs in order to maintain the competitiveness of their own products. Furthermore, even assuming that locally-made components and machinery are competitive, there would still be resistance to using them in many cases, since locally-made machinery and equipment are not now compatible with existing foreign-made assembly lines. Such incompatibility can lead to production inefficiency and quality inconsistencies. Companies typically prefer to replace old machines with new but familiar models that do not require much time to master.[70] Clearly, the localization program is a long-term solution to the problem of Japanese imports. Although essential for the long-term health of the economy, it will not lead to significant reductions in Japanese imports in the immediate future.

To achieve this end, import-diversification is necessary. Increased importation of capital goods from other countries — including the European nations and the United States — is essential. Although Japan's proximity does provide it with important competitive advantages, the appreciation of the yen should make these other countries'

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[67] There has been considerable concern that the appreciation of the yen will force South Korean producers dependent on Japanese imports to raise their prices and thereby reduce their competitiveness abroad. However, the exchange rate change has greatly strengthened the policy of reducing imports from Japan.

[68] Paul Ensor, op. cit.

[69] Of course, a continued appreciation in the value of the yen would greatly assist these smaller firms and speed up the time when they could be considered competitive suppliers.

[70] Laxmi Nakarmi, op. cit.

Table 4-28
SOUTH KOREAN INDUSTRY'S CURRENT LOCALIZATION RATE AND DEPENDENCY ON JAPAN

Product	Local Content As % of Total Value	Dependency on Japan As % of Total Imports	Main Products
Consumer Electronics			
VCR	65%	100%	Headdrum; Motor
Color TV	90	95	Integrated Circuits
Cassette Recorders (for export)	50	95	Deck, Motor, ICs
Cassette Recorders (for domestic market)	85	95	ICs
Microwave Ovens	75	100	Switches Magnetron
Industrial Electronics			
Facsimile	60	100	Thermal Printed Head
Personal Computers	40	100	ICs
Printers	35	100	Dot Matrix Printed Head
CRT Terminals	50	90	ICs
Telephones	90	95	Resonator, Piezo Buzzer
Other Parts & Components			
Color Braun Tube	80	95	Electronic Gun, Electronic Color TV Tuner
Speakers	70	95	NA
Switches	50	80	Various Function
Condensers	60	95	Various Function

Source: Samsung Electronics, reprinted in Laxmi Nakarmi, "A 'Quick-fix' Solution," *Business Korea* (June 1986), p. 17.

products more competitive. Of course, increased imports of capital goods from the United States would also help ease South Korean-American tensions considerably.

South Korea also clearly needs to increase its exports to Japan, in order to lessen its dependence on the U.S. market, as well as to reduce its bilateral trade deficit with Japan. Despite the appreciation of the yen, South Korean exports to Japan have not increased rapidly. Export growth to Japan in the first six months of 1986 was just 11.1 percent — less than half the rate of overall export growth.[71] The government is currently providing financial assistance to small- and medium-size firms to increase their exports to Japan. There is a program planned to help small companies develop their design and packaging techniques to satisfy the highly discriminating Japanese consumer.[72] Still, such steps are unlikely to lead to large increases in exports. Perhaps a more promising approach is the recent South Korean government effort to encourage European and North American firms to use South Korea as a base from which to penetrate the Japanese market. The hope is that foreign companies will enter into more joint ventures with South Korean firms, thereby combining their technology and marketing skills with South Korea's skilled and relatively cheap labor.[73] Such an approach has great potential. Further progress in the liberalization of foreign investment is, of course, a necessary prerequisite for such an idea to be successful. The recent government decision to implement domestic legislation by July 1987 to protect intellectual property rights, such as copyrights, patents, and trademarks, will no doubt further encourage firms to consider the South Korean option to the Japanese market.[74] Foreign investment liberalization will also encourage more Japanese companies to locate in South Korea to source back to their home market.

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[71] Paul Ensor, op. cit.

F. Conclusion

The South Korean government has clearly not been passive. It has responded in a rapid and dynamic fashion to reduce trade tensions. Still, further actions need to be taken. South Korea's services market needs to be further opened up to foreign companies. The recent opening of South Korea's insurance market is a good sign, but it will not by itself satisfy foreign critics. More sectors — such as advertising and banking — need to be liberalized. Liberalization should be accompanied by further efforts at trade diversification and programs to encourage South Korean firms to invest abroad in their major markets. In addition, the government needs to consider a significant real appreciation of the won against the US dollar. Such a move would serve to stimulate export diversification away from the U.S. market and also ease tensions between Washington and Seoul. In 1986, South Korean exports to the United States grew 26 percent, while imports from the U.S. rose only 3.3 percent. These trends can only aggrevate tensions. South Korea desperately needs to increase its imports of American-made goods, while shifting its exports to new markets. A significant real appreciation of the won against the US dollar is the best method of making rapid progress on both of these goals simultaneously. Inaction on this issue will only intensify American pressure.

Seoul needs to act in a fashion that responds to American concerns, but without damaging the long-run competitiveness of its exports or making it appear that it is bending to American pressure. The issue of exchange rate appreciation, like import-liberalization, has become a highly politicized topic in South Korea. The strong nationalism of the South Korean people, their strong anti-import bias, and a natural concern about the potential consequences of these reforms for domestic industry and employment have combined to help create strong resentment over and resistence to

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[72] Ibid., pp. 64-65.

[73] Interview conducted in Seoul, July 1986, by Hudson Institute research team. See also: Bernard Wysocki, Jr., "Weak in Technology South Korea Seeks Help from Overseas," *Wall Street Journal* (January 7, 1986).

[74] "Korea, U.S. Agree on Insurance, Copyright, Tobacco Protection," op. cit.

American pressure on these issues. In this environment it has become very difficult for South Korean policymakers to move forward on the necessary reforms without becoming vulnerable to charges of caving in to American pressure. One way out of this dilemma might be to call for a regional conference between the United States, South Korea, and South Korea's major competitors in the region (i.e., Taiwan, Hong Kong, Japan, Singapore). Such a conference could discuss, in a multilateral context, issues of concern to the United States and also matters that concern South Korea and the other countries. Since the concerns of both sides could be discussed, it should serve to mute domestic criticism in all the countries involved. Furthermore, any agreement or understanding reached would be multilateral and, therefore, would limit the potential damage to a nation's economy that might follow unilateral reform efforts. For example, an informal multilateral understanding on exchange rate realignment would prevent South Korean exporters from losing market share to their foreign competitors in Taiwan or Hong Kong by making the appreciation of the won contingent upon the appreciation of the New Taiwan dollar and the Hong Kong dollar. In this fashion, South Korean firms would be protected from the potential losses that might result from a unilateral appreciation of the won against the U.S. dollar. Potentially, an informal multilateral conference holds out the possibility of greater gains with less political fallout than the usual pattern of escalating arm-twisting characteristic of most bilateral negotiations.

While such measures will not lead to an immediate solution to South Korea's existing trade imbalances, they will demonstrate to Washington Seoul's commitment to fair trade and greatly ease tensions between the two countries. In this regard, they can help restore the goodwill that has been an essential component of the South Korean-American alliance since before the South Korean war. For its part, Washington needs to be sensitive to the conflicting pressures South Korean policymakers face. Such pressures are just as real as those faced by American legislators.

South Korea is in the process of becoming a pluralistic society. Already social and economic changes have led to the appearance of new interest groups within South Korean society, which are beginning to exert political pressure on the government. Over time, even greater demands will be placed on the government, which it will need to address in order to retain popular support. During the tenure of the late President Park Chung-hee, the relevant political constituency was limited and political legitimacy revolved around two key issues — national security and economic growth. Today, these issues remain important, but new issues have also emerged as the population has become more politically active. As a result, the task facing the current and future governments is one of dealing with new social demands in a constructive and democratic fashion. Clearly, the challenge facing the Chun government is to live up to its commitments to promote a more competitive domestic economy, while also keeping its promise to the South Korean people to advance political liberalization at home.

As South Korea's closest ally and the leader of the non-communist world, the United States has an important role to play in encouraging greater democracy in South Korea. Economic reform and liberalization represent highly volatile domestic issues. In this environment, the challenge to U.S. government officials will be to encourage further liberalization, while recognizing the impact that such American pressure has within South Korea. American leaders must be careful not to disturb the slow movement toward greater democracy within South Korea for the sake of some minimal and short-term trade gain.

V. THE UNITED STATES AND THE REPUBLIC OF CHINA: POLITICAL AND ECONOMIC RELATIONS IN A CHANGING INTERNATIONAL ENVIRONMENT

A. Introduction

U.S.-Taiwan relations are an uneasy mix of competitive and cooperative elements within an ambiguous diplomatic framework that sometimes makes problems difficult to resolve. To the United States, Taiwan represents many things: a long-standing national political commitment, the first success story of American economic assistance, a model for successful development policies along market-based lines, an important platform for foreign investment, and a major trading partner. At the same time, the relationship with Taiwan introduces significant frictions into the United States' relationship with the P.R.C. And, of course, the extraordinarily rapid growth in the U.S. bilateral trade deficit with Taiwan since 1980 has highlighted Taiwan as a special problem in the American domestic trade policy debate, regardless of the reasons for this growth.

From Taiwan's perspective, the United States is the benefactor without whose economic and military aid over the years the government and economy would be unlikely to exist in its present form. The United States remains Taiwan's largest market, the source of much of its technology, and its major source of political support, despite official derecognition. Nevertheless, Taiwan doubtless views the United States as somewhat erratic in its policies and inconsistent in its support. Since Taiwan remains heavily dependent upon the United States, it is particularly vulnerable to American economic and political changes. Tensions and difficulties thus exist on both sides of the relationship.

After 37 years of economic cooperation, the American and Taiwanese economies have become linked in a fashion that is of great benefit to both countries, but that has inevitably led to tensions, as both countries have changed over time. Any close political and economic relationship will experience strains and frictions. Such frictions will always dominate current debate, even if they have little bearing on the fundamentals of the relationship. The current tensions between the U.S. and the R.O.C., however, come at a time in which the nature of the relationship between the two countries is being redefined. American strategists now believe that Taiwan's strategic importance to the U.S. has declined. American policy in the Far East is increasingly focused upon Taiwan's arch-rival the P.R.C., while Taiwan, for its part, has now emerged as a source of serious economic competition for the United States. In the context of this changing relationship, the single issue that has dominated the overall policy dialogue in recent years has been the extraordinary growth of the bilateral trade imbalance. Ultimately, the resolution of this single issue may have important implications for the future evolution of the broader U.S.-R.O.C. relationship.

Since the late 1970s, Taiwan's trade surpluses have expanded dramatically, reaching some US $10 billion in 1985 (Table 5-1).[1] By the end of 1986, it is expected that the overall trade surplus will reach US $15.5 billion.[2] These global surpluses

Table 5-1
TAIWAN'S TRADE ACCOUNT BALANCE: TOTAL AND U.S., 1961-1986
(Millions of US Dollars)

Year	Total	United States
1961	(−) 127.0	(−) 88.1
1962	(−) 85.9	(−) 62.1
1963	(−) 30.0	(−) 96.6
1964	(+) 5.0	(−) 58.3
1965	(−) 106.3	(−) 80.7
1966	(−) 86.1	(−) 50.5
1967	(−) 165.1	(−) 79.5
1968	(−) 114.1	(+) 38.7
1969	(−) 163.3	(+) 107.3
1970	(−) 42.5	(+) 200.3
1971	(+) 216.5	(+) 451.0
1972	(+) 474.6	(+) 707.9
1973	(+) 690.9	(+) 724.6
1974	(−) 1,326.8	(+) 356.7
1975	(−) 642.9	(+) 170.6
1976	(+) 567.4	(+) 1,241.2
1977	(+) 849.8	(+) 1,672.4
1978	(+) 1,660.2	(+) 2,634.3
1979	(+) 1,329.7	(+) 2,271.4
1980	(+) 77.5	(+) 2,086.8
1981	(+) 1,411.6	(+) 3,397.4
1982	(+) 3,316.0	(+) 4,195.7
1983	(+) 4,835.7	(+) 6,687.3
1984	(+) 8,497.3	(+) 9,826.1
1985	(+)10,620.7	(+)10,026.7
1986 Jan.-Apr.	(+) 4,250.7	—

Sources: Department of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports and Imports, the Republic of China (Taiwan District), April 1986*, No. 200 (June 20, 1986); Council for Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985*; Board of Foreign Trade, Ministry of Economic Affairs, Republic of China, *Two-Way Trade Statistics Between U.S.A. and the Republic of China* (1986).

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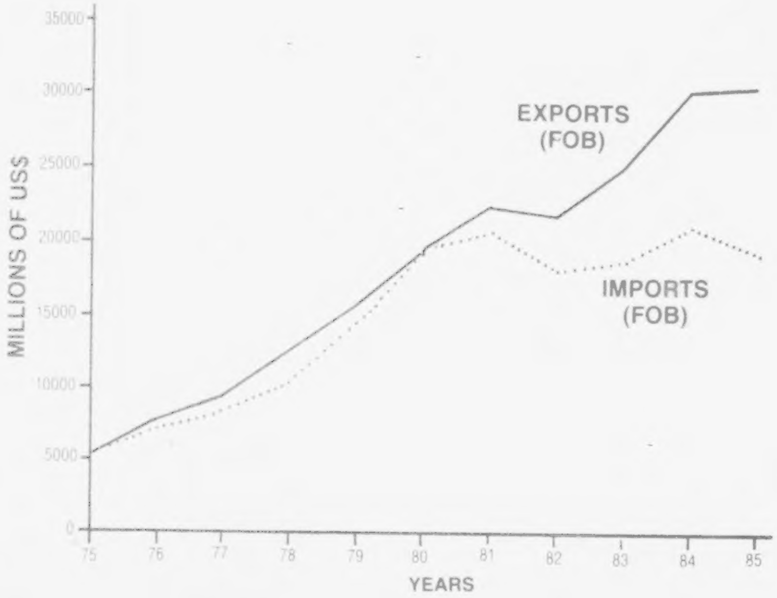
[1] The figures used in this chapter are based on Taiwanese statistics. These figures are consistently lower than those of the U.S. Department of Commerce, due to different reporting conventions and other factors. Since the trends are the same, however, for our purposes it is adequate to use the Taiwan data.

[2] Carl Goldstein, "Their Own Worst Enemy," *Far Eastern Economic Review* (January 1, 1987), p. 59.

reflect the extraordinary growth of bilateral surpluses with the United States. There has been a continued surge in exports, largely to the U.S. market, while imports have stagnated (see Figures 5-1 and 5-2) — a major break with historical trends. In order to make sensible projections for the next several years and to design reasonable and constructive policies, this chapter seeks to identify the structural, macroeconomic, and other factors that explain this anomalous change in trade trends.

Figure 5-1
TAIWAN'S MERCHANDISE TRADE, 1975-1985
(On a Balance of Payments Basis)

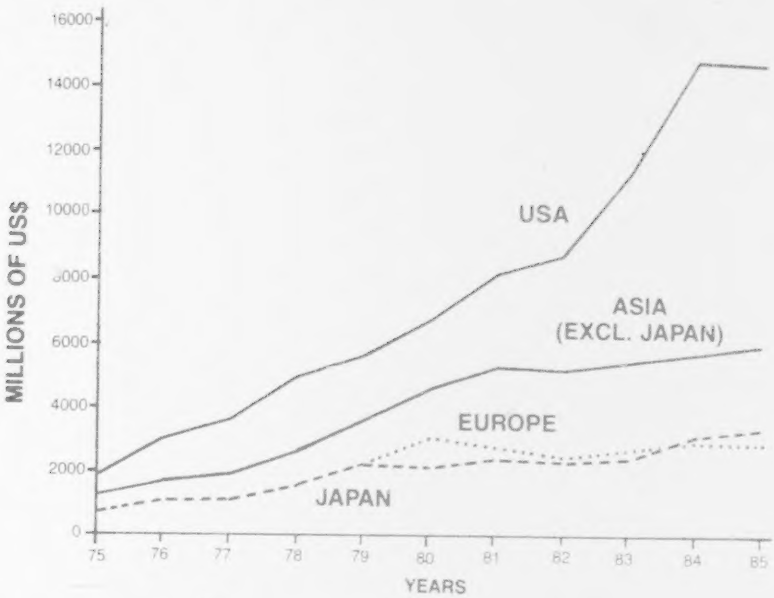


Source: Economic Research Department, Central Bank of China, Republic of China, *Graphical Survey of the Economy of Taiwan District, The Republic of China* (June 1986).

The trade imbalance between the U.S. and Taiwan has created political pressures within the United States for protective measures, as well as political pressures designed to induce Taiwan to expand its imports from the United States. Such actions would significantly reduce the trade imbalance only if the policies and practices that Taiwan uses to protect its domestic market and subsidize exports are indeed among the main causes of the trade imbalances. If, however, macroeconomic and structural factors are the dominant causes of the trade imbalances, then trade policy actions not only will be inadequate to solve the problem, but also may prove counterproductive. The three approaches described below serve to explain the trade imbalances.

The first is a review of macroeconomic balances. It is a fundamental accounting fact that any country that uses more (less) goods and services in consumption and

Figure 5-2
TAIWAN'S MAJOR EXPORT MARKETS, 1975-1985



Source: Economic Research Department, Central Bank of China, Republic of China, *Graphical Survey of the Economy of Taiwan District, The Republic of China* (June 1986).

investment than it produces must make up the difference by having imports of goods and services exceed (lag) exports, which in turn is paid for with a compensating inflow (outflow) on the capital account of the balance of payments. All macroeconomic analysis is based on an exploration of the multitude of factors that affect various elements of this accounting identity. For our purposes, the most useful approach is to focus on the savings-investment balance. The accounting identity can be restated as requiring that gross national savings equal gross national investment. Domestic or foreign events that influence any element of this balance will set into motion various market forces to counterbalance that influence. Important basic changes have occurred in this balance in both the United States and Taiwan in recent years, changes that have had major implications for trade.

The second approach is to look at the major factors directly influencing exports and imports — economic growth and relative prices — and the degree to which both American and Taiwanese trade responds to changes in those factors. If all other things are constant, a slowdown in one country's growth will reduce its demand for the other's exports, while an increase in the price of its goods relative to the other will reduce its exports and expand its imports. In recent years, both countries have experienced major changes in their rates of economic growth and inflation, as well as in their exchange rates. By themselves, these changes would have strongly influenced trade; but there is a common perception that the way these factors have affected exports and trade may also have changed in recent years in ways detrimental to the U.S. trade balance. For example, quality improvements in Taiwanese goods in recent years have increased their product acceptance in the U.S. market. Both the economic changes and the way in which these changes influence trade, therefore, need to be investigated.

The third approach is to look at barriers to trade — policies and practices that promote exports and restrict imports. These provide part of the framework for trade and influence its structure and direction, although such policies and practices affect the overall trade balance only indirectly.

This chapter reviews these major macroeconomic, trade, and policy trends. It assesses their interaction and the probable resultant outcomes under various policy options. Likely policy tensions and opportunities then are discussed.

B. Savings and Investment

Taiwan's overall current account surplus derives to a large extent from the country's long-term savings and investment balance. Taiwan has a very high savings rate. Gross savings as a percentage of gross national product increased from just over 9 percent in 1952 to nearly 35 percent in 1973 and has fluctuated between 30 and 35 percent thereafter (Table 5-2). Both the public and private sectors save at a very high rate. Public policies have taken advantage of the population's propensity to save and have introduced effective measures to enhance this propensity.

Basic policy directions were established early. Taiwan's economy was in terrible shape in the aftermath of the Second World War and the Chinese revolution. The island's underdeveloped industrial structure (it was mostly oriented to supplying the Japanese market with rice, sugar, and some military requirements, such as aluminum) had taken a severe beating from American aerial bombardment during the war. The influx of some two million soldiers and civilian refugees from the mainland following the defeat of the Kuomintang (KMT) by the Chinese Communist Party (CCP) in 1949 further strained the island's resources. The need to rebuild the economy to support the suddenly enlarged population, combined with the security imperative of maintaining a large military, meant that a balanced budget was impossible. The situation was aggravated by the government's initial policy of maintaining interest rates at an artificially low level in order to ensure a supply of cheap credit for Taiwan's new infant industries. High inflation quickly resulted — under the circumstances, it was unavoidable.

But the government was unwilling to accept inflation for long. The disastrous hyperinflation on mainland China, which the KMT believed had helped to undermine its rule, was still a fresh memory, making the control of inflation a political imperative for the KMT leadership. Accordingly, the government quickly reversed course. In March 1950, the government raised the nominal interest rate on preferential interest rate deposits (PIRD) to a remarkable 125 percent annually. This new positive real interest rate policy immediately began to bring down the inflation rate, while swelling national savings. Time deposits rose from NT $6 million (barely 1.7 percent of the money supply) at the end of March 1950 to NT $28 million (roughly 7 percent of the

Table 5-2
SAVINGS IN TAIWAN AS PERCENTAGE OF NATIONAL INCOME AND GNP
(Millions of NT Dollars)

Period	Net Savings	Net Savings As Percentage of National Income	Gross Savings	Gross Savings Savings as Percentage of GNP
1952	759	5.2	1,586	9.2
1955	1,196	4.9	2,700	9.0
1958	1,789	5.0	4,411	9.9
1961	4,555	8.0	8,935	12.8
1964	13,461	16.3	19,880	19.6
1967	23,322	20.1	32,574	22.5
1970	42,062	23.8	57,360	25.5
1973	112,179	35.0	141,021	34.6
1976	174,855	32.2	226,477	32.5
1979	315,544	34.7	407,298	34.3
1982	411,065	27.7	565,119	30.4
1984[1]	597,067	32.6	784,520	34.3

Note: 1) Estimate.

Source: Council for Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985*.

money supply) by the end of June. Although the government briefly reversed these policies at the end of 1950, renewed inflation led to the reinstitution of positive real interest rates in March 1951.[3]

Since that time, Taiwan's government has consistently encouraged savings by maintaining positive real interest rates, low inflation, and a stable exchange rate.[4] While other structural factors and incentives contributed, these policies have been the fundamental factors behind Taiwan's much acclaimed national savings rate. This large pool of savings has been critical in providing funds for Taiwan's development. (The pattern of savings in Taiwan is shown in Table 5-3.)

Yet, in the 1950s and early 1960s, domestic savings, although increasing rapidly, were inadequate to meet the nation's capital formation requirements. From 1952 to 1960, inflows of foreign capital — largely U.S. aid — financed over 40 percent of gross domestic investment (Table 5-4).[5] By the mid-1960s, however, the net inflow of

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[3] S.C. Tsiang, "Taiwan's Economic Miracle: Lessons in Economic Development," in Arnold C. Harberger, ed., *World Economic Growth: Case Studies of Developed and Developing Nations* (San Francisco, CA: Institute for Contemporary Studies, 1984), pp. 314-315.

[4] The pro-savings bias of government policy is also reflected in budget policies. By the early 1960s, the government became a large positive contributor to net national savings (see Table 5-3). Indeed, in 1984, the government (excluding public firms) contributed 22 percent of total savings, and public firms another 9 percent.

[5] Rong-i Wu, "U.S. Direct Investment in Taiwan: An Economic Appraisal," *Economic Review* (The International Commercial Bank of China, R.O.C.), No. 229 (Jan.-Feb. 1986), p. 3.

Table 5-3
TAIWAN: NATIONAL SAVING, 1952-1984
(Millions of NT Dollars)

Period	Total Gross National Savings	Provision for Capital Consumption			Net National Savings			
		Subtotal	Public Firms	Private Sector	Subtotal	Government	Public Firms	Private Sector
1952	1,586	827	292	535	759	−87	64	782
1955	2,700	1,504	448	1,056	1,196	−125	231	1,090
1958	4,411	2,622	865	1,757	1,789	−282	542	1,529
1961	8,935	4,380	1,426	2,954	4,555	−957	1,138	4,374
1964	19,880	6,419	2,175	4,244	13,461	1,153	2,069	10,239
1967	32,574	9,252	2,847	6,405	23,322	3,346	2,693	17,283
1970	57,360	15,298	4,669	10,629	42,062	7,846	5,770	28,446
1973	141,021	28,842	6,761	22,081	112,179	25,245	5,359	81,575
1976	226,477	51,622	14,936	36,686	174,855	57,611	16,797	100,447
1979	407,298	91,754	27,282	64,472	315,544	111,360	23,536	180,648
1982	565,119	154,054	50,202	103,852	411,065	94,339	51,303	265,423
1984[1]	784,520	187,453	63,390	124,063	597,067	131,699	52,870	412,498

Note: 1) Estimate.

Source: Council for Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985*.

Table 5-4
SOURCE OF FUNDS FOR GROSS DOMESTIC CAPITAL FORMATION IN TAIWAN, 1952-1983
(As a Percentage of Gross Domestic Capital Formation)

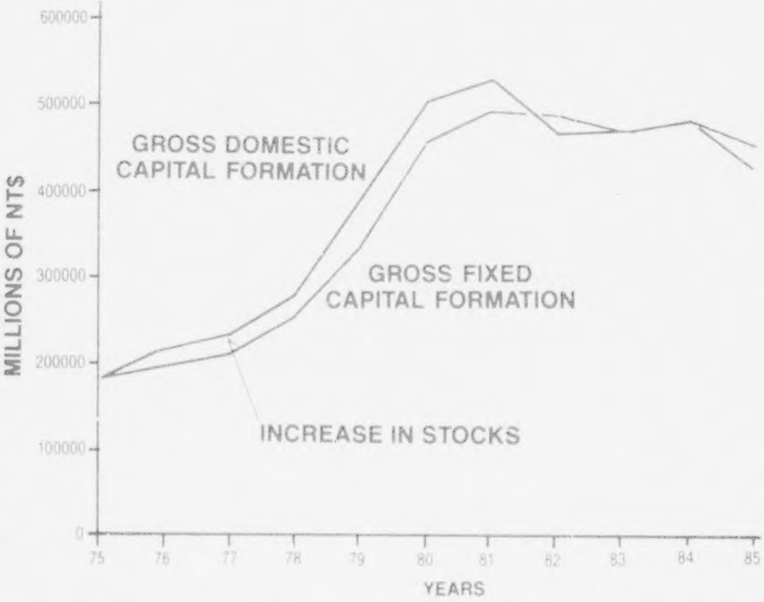
Period	Gross Domestic Capital Formation	Gross Domestic Saving	Foreign Capital Inflow		
			Total	Direct Foreign Investment	U.S. Direct Investment
1952-55	100.0	59.3	40.7	1.0	0.9
1956-60	100.0	60.0	40.1	1.3	1.3
1961-65	100.0	85.1	14.9	4.7	2.5
1966-70	100.0	95.0	5.0	5.1	3.1
1971-75	100.0	97.4	2.6	3.5	1.5
1976-80	100.0	106.1	−6.1	1.7	0.5
1981-83	100.0	122.2	−22.2	2.9	1.0

Source: Rong-i Wu, "U.S. Direct Investment in Taiwan: An Economic Appraisal," *Economic Review, (International Commercial Bank of China, R.O.C.)*, No. 229 (Jan.-Feb. 1986), p. 3.

foreign capital constituted only a few percent of investment. By 1976, Taiwan had become a capital-exporting country.

The major recent change in the savings-investment balance has not been in savings, but rather in investment, which has declined sharply in the 1980s as a share of GNP and even in absolute terms (Figure 5-3 and Table 5-5). Between 1980 and 1985, gross capital formation as a share of GNP declined from 34.3 percent to 17.9 percent. The private sector accounted for slightly less than half of this decline (7.7 percentage points).[6] The data, therefore, do not support the commonly stated argument that the principal cause of the decline in investment has been business confidence. The fall in public sector investment is as much to blame. The reasons for the investment decline are discussed below.

Figure 5-3
TAIWAN'S GROSS DOMESTIC CAPITAL FORMATION, 1975-1985



Source: Economic Research Department, Central Bank of China, Republic of China, *Graphical Survey of the Economy of Taiwan District, The Republic of China* (June 1986).

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[6] It should be noted that much private investment is financed through the "unorganized" money market. Reportedly, around 30 percent of business credit comes from the "grey" market — i.e., outside the formal banking system. See: Anthony Rowley, "All That Money Is Being Bought Dearly," *Far Eastern Economic Review* (May 15, 1986), p. 82.

Table 5-5

COMPOSITION OF TAIWAN'S GROSS DOMES

(Millions of NT

Period	Gross Domestic Capital Formation		
	Total	Private Sector	
		Amount	Share of (Percentage)
1952	2,643	1,172	44.3
1955	3,998	2,097	52.4
1958	7,458	2,786	37.4
1961	13,983	8,139	58.2
1964	19,089	12,528	65.6
1967	35,882	22,427	62.5
1970	57,886	34,709	59.9
1973	119,373	77,971	65.3
1976	216,231	101,073	46.7
1979	393,379	238,288	60.6
1980	503,911	259,544	51.1
1981	529,833	268,055	50.6
1982	468,004	217,180	46.4
1983	469,395	239,865	51.1
1984	484,361	276,885	57.2
1985[2]	428,901	226,368	52.8

Note: 1) The public sector value was calculated as a resid
figures are preliminary.

Sources: Council for Economic Planning and Developme
Book 1985; Council for Economic Planning and D
"Taiwan Economic Statistics," *Industry of Fr*
Directorate-General of Budget, Accounting and
National Income in Taiwan Area, The Republic
Preliminary Estimates for 1985 (December 1985)

Table 5-5
'S GROSS DOMESTIC CAPITAL FORMATION, 1952-1985
(Millions of NT Dollars)

ital Formation	GNP	Gross Domestic Capital Formation as % of GNP		
vate Sector				
Share of (Percentage)		Total	Private Sector	Public Sector[1]
44.3	17,162	15.4	6.8	8.6
52.4	29,835	13.4	7.0	6.4
37.4	44,502	16.8	6.3	10.5
58.2	69,594	20.1	11.7	8.4
65.6	101,492	18.8	12.3	6.5
62.5	144,839	24.8	15.5	9.3
59.9	225,283	25.7	15.4	10.3
65.3	407,419	29.3	19.1	10.2
46.7	696,101	31.1	14.5	10.6
60.6	1,180,952	33.3	20.2	13.1
51.1	1,468,069	34.3	17.7	16.1
50.6	1,739,794	30.5	15.4	15.1
46.4	1,858,983	25.2	11.7	13.5
51.1	2,044,090	23.0	11.7	11.3
57.2	2,277,796	21.3	12.2	9.1
52.8	2,394,837	17.9	9.4	8.5

calculated as a residual; this includes errors and omissions. 2) 1985

ning and Development, Republic of China, *Taiwan Statistical Data*
omic Planning and Development, Executive Yuan, Republic of China,
cs," *Industry of Free China*, Vol. LXV, No. 6 (June 1986); and
get, Accounting and Statistics, Executive Yuan, Republic of China,
Area, The Republic of China National Account for 1951-1984 and
985 (December 1985).

1. Private Savings and Investment

Although Taiwan needs high savings to support its rapid economic growth, in light of recent weak investment trends, the current savings rates have been too high. Government policy can influence savings. Some 30 percent of savings (including those of public enterprises) are under budgetary control — more on this below. Moreover, the government can influence private savings through interest rates, financial market regulation, and tax policy. History has shown that the Chinese are quite sensitive to policy changes in savings incentives. It is unlikely, however, that large reductions in private savings can be made in the short- or even medium-term, because a high savings rate is by now strongly rooted in the country's habits and institutional structures.[7]

The investment decline reflects, and at the same time is a cause of, slower economic growth. As noted above, both public and private investment declined as a share of GNP. Within the private sector, the greatest stagnation occurred in the corporate sector. Households, which include unincorporated businesses, expanded investment at a much higher rate (Table 5-6). Nevertheless, both components of private investment grew less quickly than private savings, which expanded more or less with GDP. As a result, the excess savings (net lending) of the private sector expanded at an enormous rate after the late 1970s.

Much of this decline in private sector investment can be traced to the decline in public sector spending and investment that had previously played an important stimulatory role. Not surprisingly, as public sector investment has risen in the last year, private sector investment has also begun to pick up. Public investment began rising in early 1986 as the government and publicly-owned enterprises began implementing the 14 major government projects originally announced in September 1984. For the private sector, investment lagged slightly — beginning to rise only in the third quarter of 1986. In the third quarter, however, private sector investment rose 3.6 percent; it is expected to rise even further in the fourth quarter.[8] Clearly, public sector investment has played a leading role in determining Taiwan's investment patterns and, therefore, provides the government with significant influence over the economy.

2. Government Saving and Investment

The R.O.C. has followed extremely conservative fiscal policies, which have been partly responsible for the large excess savings of recent years. Typically, the government earns budget surpluses on the current account, which cover all of the government's capital expenditures and much of those of public corporations (Table 5-7). On

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[7] Household and unincorporated enterprises account for about 90 percent of private savings. The increased average propensity to save (see Data Appendix, Table 5-1) probably reflects not only rising real personal incomes, but also the mushrooming of small-scale family businesses. (Data on firm characteristics are provided in Tables 5-27, 5-28 and 5-29.) Personal and family assets are the primary source of funds for the growing number of small firms. Formal financial markets simply are inadequate to supply them with capital. Indeed, even in countries with much deeper and broader financial markets, small firms of the size that are prevalent in Taiwan must rely mainly on personal and family assets until they have proven themselves a sufficiently good risk for financial institutions to extend loans. The absence of public retirement programs also contributes to the high savings rates of recent years.

[8] American Institute in Taiwan, *Foreign Economic Trends and Their Implications for the United States: Taiwan*, Draft (October 1986).

Table 5-6
TAIWAN'S PRIVATE SAVINGS AND INVESTMENT: RATES OF GROWTH
(Percentages)

	1970-73 to 1976-79	1976-79 to 1981-83
Private Savings	19.3	16.6
Corporate	13.6	1.6
Corporate Capital Consumption	21.9	16.9
Households	19.0	18.4
Private Investment	20.1	10.5
Corporate	18.0	9.1
Housholds	28.6	14.5
Net Borrowing(−)/Lending(+)	15.3	30.1
Corporate	−16.5	−8.0
Households	16.0	19.9
Gross Capital Formation	22.8	11.7
Gross Accumulation	21.9	15.4
GDP	20.4	16.5

Note: Compound annual growth rates are based on four year averages of current NT$ values.

Source: Directorate-General of Budget, Accounting and Statistics, Republic of China, *Statistical Yearbook of the Republic of China, 1985*.

balance, the government sector is a small net borrower from the private sector and absorbs only a small fraction of net private accumulation.

Government savings grew at an extraordinary pace in the 1970s and continued to grow at a pace slightly higher than that of government investment in the 1980s. This decline in government investment reflected two important changes. First, the reliance of public corporations on borrowed funds for investment fell from the traditional 50 percent to less than 30 percent. Second, the slowdown in government spending growth was mainly due to cuts in investment growth. The slowdown in government and public corporation investment led the decline in overall investment discussed above. Since much of Taiwan's imports consist of investment goods, the slowdown also led to declines in import growth. As mentioned above, however, the investment situation has begun to turn around since the implementation of the government's planned large-scale

Table 5-7
TAIWAN: GOVERNMENT SAVINGS AND INVESTMENT, 1970-1984

	Billions of NT Dollars			Percentages	
	1970-73	1976-79	1981-84	1970-73 to 76-79	1976-79 to 81-84
Government Savings	27.5	119.5	223.5	27.7	13.3
General Govt.	15.9	79.1	113.3	30.7	7.4
Public Corp.	5.7	19.7	56.6	23.1	23.5
Public Corp. Capital Consumption	6.0	20.6	53.6	23.0	21.0
Govt. Investment	31.1	128.5	237.4	26.7	13.1
General Govt.	8.0	41.3	80.0	31.6	14.1
Public Corp.	23.2	-87.2	157.4	24.7	12.5
Net Borrowing(−)/ Lending(+)	−3.6	−9.0	−13.9	−16.7	−9.0
General Govt.	8.0	37.8	33.3	29.7	−2.3
Public Corp.	−11.5	−46.8	−47.2	−26.3	−0.2
General Government					
Current Receipts	66.7	223.1	457.1	22.3	15.4
Current Disbursements	50.8	143.9	343.9	19.0	19.0
Current Budget Surplus	15.9	79.1	113.2	30.7	7.4
Memorandum Item					
Current Budget Surplus as % of GDP	5.3	8.6	5.7	NA	NA

Source: Directorate-General of Budget, Accounting and Statistics, Republic of China, *Statistical Yearbook of the Republic of China, 1985*.

infrastructure projects. The implications of Taiwan's investment patterns for import demand will be explored further below.

C. Taiwan's Trade Flows

Taiwan ran a US $10.6 billion surplus on its merchandise trade account in 1985, and a US $11 billion surplus — a 41.8 percent increase over last year's pace — for the first nine months of 1986.[9] By the end of 1986, Taiwan's overall trade surplus is expected to reach US $15.5 billion, and its current account surplus is likely to top US $13 billion.[10] The result of large surpluses over a decade has been an enormous accumulation of foreign exchange reserves. On June 20, 1986, the R.O.C.'s foreign exchange holdings topped US $30 billion — a sum exceeded only by the holdings of West Germany and the United States. That is about US $1,500 per person in Taiwan or enough to cover more than 16 months of imports.[11] Furthermore, reserves continue to grow significantly. By the end of 1986, foreign exchange reserves hit US $46 billion.[12] Inevitably, the huge scale of Taiwan's foreign exchange reserves has created economic difficulties — raising inflationary fears and increasing pressure to allow the New Taiwan Dollar to appreciate. It has also become a political liability. Recently, influential U.S. government officials have, for the first time, grouped the R.O.C. together with West Germany and Japan in trade policy speeches — indicating that the U.S. is beginning to view the island as an industrial power. If that image of the R.O.C. gains general acceptance around the world, the island's trade difficulties will multiply.[13]

1. An Overview of Taiwan's Trade Relations

Taiwan has become such a famous example of export-based development that it is difficult to imagine the R.O.C. government pursuing other policies. In the early 1950s, however, Taiwan followed the prevalent development strategy of the day — i.e., import-substitution. These import-substitution policies involved a grossly overvalued exchange rate, foreign exchange controls, and large import barriers in the form of tariffs and quotas. At that time, Taiwan produced mostly traditional products — sugar, rice, pineapples, etc. — destined largely for its traditional pre-war markets (e.g., Japan). The policy structure did not encourage the development of viable new export industries. Industrial development was, therefore, limited to the creation of inefficient industries producing inexpensive consumer goods for the small, highly-protected domestic market. Although Taiwan's economic growth indicators for the early 1950s were impressive, they disguised serious underlying weaknesses in the economy. Agriculture remained the dominant sector; the pace of urban industrial growth was weak; population growth was exploding at the rate of 3.5 percent annually; and the government remained dangerously dependent on American aid for generating domestic capital formation.

In 1958-59, the government took a bold new tack — it reversed the import-substitution strategy. The New Taiwan Dollar (NT$) was devalued to a level equivalent to its real international market value, and trade restrictions were liberalized. These reforms reoriented the Taiwanese economy to the world economy and laid the groundwork for Taiwan's "economic miracle" — its transformation into one of the world's leading trading nations. The impact of this sudden shift is evident in Tables 5-8, 5-9, and 5-10. Over the course of the next 25 years, Taiwan's trade expanded enormously, with exports growing faster than imports. The rapid export growth of the decade after 1965 transformed Taiwan from a nation with a chronic trade deficit to one with a chronic surplus. With the exception of the 1974-1975 period following the first oil shock, Taiwan has experienced a surplus on its merchandise trade account every year since 1971.

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[9] "Robust Growth Continues," *Far Eastern Economic Review* (September 11, 1986), p. 124.

[10] Carl Goldstein, "Their Own Worst Enemy," op. cit.

[11] "Taiwan's Mountain of Money," *Asia Week* (July 13, 1986), p. 57.

[12] Julia Leung, "Taiwan Mixes Priorities in Finance Plans," *The Asian Wall Street Journal* (January 7, 1987).

[13] Carl Chen, "ROC-USA Trade Talks Still Groping for Common Ground," *The Economic News (Taipei)*, No. 599 (June 30-July 6, 1986), p. 4.

The rapid expansion of Taiwan's trade during these years was the result of the development of many new export industries, which in turn brought about a fundamental change in export structure. In 1952, raw and processed agricultural products accounted for 91.9 percent of the total value of Taiwan's exports (Table 5-11). By 1984, exports of industrial products accounted for 93.9 percent of Taiwan's exports. Taiwan's principal exports are electronic products, electrical appliances and machinery, textiles and clothing, metal products, non-electrical machinery, and footwear. (See Data Appendix, Tables 5-II through 5-IV for supporting data.)

Taiwan's imports have also changed over the years. As the R.O.C.'s economy has grown, imports of capital goods have increased as a share of the total. Today, the R.O.C.'s imports of machinery and transport equipment are even greater than its petroleum imports. Aside from crude oil, Taiwan's major imports include agricultural products, electronics, electrical appliances and machinery, non-electrical machinery, basic metals, and chemicals. Imports are dominated by capital goods and products required as production inputs, and thus are very sensitive to domestic production and investment trends. (See Data Appendix, Tables 5-V to 5-VII for supporting data.)

Taiwan's services trade has grown along with its trade in goods, but, in contrast to its trade account, the country traditionally runs a deficit on its services account. Nevertheless, Taiwan's strong merchandise trade performance in recent years has indirectly helped to reduce the deficit on its services account. Taiwan's growing foreign exchange reserves have been invested in foreign assets by both the government and the private sector, which has led to a significant increase in inflows of investment income into Taiwan. As a result, the balance on the country's services account has improved. In recent years the services deficit has run between US $1 and $2 billion (see Table 5-12).

2. The Triangular Relationship: U.S.-Taiwan-Japan

Taiwan's foreign trade is largely driven by a triangular relationship with the United States and Japan (see Tables 5-13 and 5-14; and Data Appendix, Tables 5-VIII and 5-IX for further data). Before the early 1980s, Taiwan earned large trade surpluses with the United States, which were offset by large trade deficits with Japan. In recent years, however, the size of Taiwan's surplus with the U.S. has dwarfed that of its deficit with Japan. Nevertheless, the Taiwanese have remained extremely conscious of their problems with Japan when negotiating with the United States. The United States has pressured Taiwan's government to implement non-discriminatory liberalization of its tariff and non-tariff barriers, in order to open up the Taiwanese market to American exports. In response, the Taiwanese have argued that Japanese firms would be the

Table 5-8
TAIWAN: BALANCE OF FOREIGN TRADE, 1961-1986
(Billions of US Dollars)

Year & Month	Exports	Imports	Balance	Exchange Rate
1961	0.20	0.32	(−) 0.13	40.03
1962	0.22	0.30	(−) 0.86	40.03
1963	0.33	0.36	(−) 0.30	40.05
1964	0.43	0.43	(+) 0.005	40.10
1965	0.45	0.56	(−) 0.11	40.00
1966	0.54	0.62	(−) 0.09	40.00
1967	0.64	0.81	(−) 0.17	40.00
1968	0.79	0.90	(−) 0.11	40.00
1969	1.05	1.21	(−) 0.16	40.00
1970	1.48	1.52	(−) 0.04	40.00
1971	2.06	1.84	(+) 0.22	40.00
1972	2.99	2.51	(+) 0.47	40.00
1973	4.48	3.80	(+) 0.69	38.08
1974	5.64	6.97	(−) 1.33	37.90
1975	5.31	5.95	(−) 0.64	39.95
1976	8.17	7.60	(+) 0.57	37.95
1977	9.36	8.51	(+) 0.85	37.95
1978	12.69	11.03	(+) 1.66	36.93
1979	16.10	14.77	(+) 1.33	35.97
1980	19.10	19.73	(+) 0.08	35.95
1981	22.61	21.20	(+) 1.41	36.70
1982	22.20	18.89	(+) 3.32	38.92
1983	25.12	20.29	(+) 4.84	40.02
1984	30.46	21.96	(+) 8.50	39.55
1985	30.72	20.10	(+)10.62	39.80
Jan-Apr '85	9.77	6.84	(+) 2.93	39.35
Jan-Apr '86	11.52	7.27	(+) 4.25	39.17

Notes: Exchange rate between NT $ and US $; Net values of imports and exports are shown before 1973; gross values are shown in 1973 and afterwards.

Source: Department of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports and Imports, The Republic of China (Taiwan District), April 1986 No. 200.* (June 20, 1986).

Table 5-9
GROWTH OF TAIWAN'S FOREIGN TRADE, 1952-1985
(Average Annual Percentage Increases)

Period	Total Trade	Exports	Imports
1952-62[1]	+6%	+6%	+5%
1962-72	+27	+30	+23
1972-82	+22	+22	+22
1980-85	+5	+9	+0.4

Note: 1) Compound average annual growth over the period.

Source: Council of Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985.*

Table 5-10
TAIWAN: GROWTH OF IMPORTS AND EXPORTS, 1952-1985

Year	Annual Growth Rate (%)		
	Total Trade	Exports	Imports
1952	—	—	—
1953	8.4	35.1	8.7
1954	0.4	−26.9	20.0
1955	6.5	32.2	−4.8
1956	52.7	52.9	52.6
1957	15.6	25.4	9.6
1958	6.0	5.1	6.6
1959	49.2	47.8	50.2
1960	18.7	4.5	28.2
1961	23.5	30.9	19.4
1962	1.0	11.8	−5.6
1963	32.8	52.1	19.0
1964	24.3	30.7	18.5
1965	16.7	3.6	29.9
1966	15.2	19.3	11.9
1967	24.9	19.5	29.5
1968	17.0	23.2	12.1
1969	33.7	33.0	34.3
1970	32.9	41.2	25.7
1971	29.9	39.1	21.0
1972	40.9	45.0	36.3
1973	43.3	42.8	43.9
1974	51.7	25.2	82.9
1975	−10.7	−5.7	−14.7
1976	40.0	53.8	27.7
1977	13.4	14.6	12.0
1978	29.1	31.9	26.1
1979	26.8	23.6	30.5
1980	28.0	22.9	33.5
1981	13.0	16.5	9.4
1982	−0.5	4.2	−5.5
1983	13.7	16.3	10.6
1984	14.1	19.8	7.0
1985	−3.0	0.9	−8.5

Sources: Council for Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985*; Dept. of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports and Imports the Republic of China (Taiwan District), April 1986, No. 200* (June 20, 1986).

Table 5-11
COMPOSITION OF TAIWAN'S FOREIGN TRADE, 1952-84
(Percentages of Total)

	Exports			Imports		
Year	Agri. Prod.	Proc. Agri.	Indus. Prod.	Capital Goods	Agri. and Indus. Raw Materials	Consump. Goods
1952	22.1	69.8	8.1	14.2	65.9	19.9
1958	23.7	62.3	14.0	21.8	71.8	6.4
1961	14.8	44.3	40.9	26.4	63.5	10.1
1964	15.0	42.5	42.5	22.1	71.8	6.1
1970	8.6	12.8	78.6	32.3	62.8	4.9
1973	7.5	7.9	84.6	28.6	65.8	5.6
1976	5.0	7.4	87.6	29.1	64.7	6.2
1981	2.4	5.4	92.2	25.7	68.2	6.1
1984	1.6	4.5	93.9	23.7	68.8	7.5

Source: Council for Economic Planning and Development, Republic of China. *Taiwan Statistical Data Book 1985.*

Table 5-12
TAIWAN: SERVICE TRANSACTIONS, 1975-1985
(Millions of US Dollars)

Year	Receipts (Incl. Factor Income)	Payments (Incl. Factor Income)	Factor Income & Cost	
			Receipts	Payments
1975	970	1,312	234	322
1976	1,162	1,577	248	380
1977	1,375	1,613	320	455
1978	1,824	2,345	513	576
1979	2,585	3,502	825	814
1980	3,052	3,946	1,027	1,085
1981	3,672	4,877	1,271	1,533
1982	3,915	5,178	1,538	1,556
1983	3,804	5,618	1,372	1,291
1984	4,550	6,638	1,888	1,246
1985	5,035	6,710	2,211	1,175

Source: Economic Research Department, The Central Bank of China, Republic of China. *Craphical Survey of the Economy of Taiwan District, the Republic of China* (June 1986).

Table 5-13
DIRECTION OF TAIWAN'S EXPORTS, 1976-1985
(Millions of US Dollars)

Country or Area	1976	1978	1980	1982	1984	1985
Total	8,166	12,687	19,811	22,204	30,456.4	30,723
USA	3,039	5,010	6,760	8,758	14,867.7	14,773
Share (%)	37.2	39.5	34.1	39.4	48.82	48.1
Japan	1,095	1,570	2,173	2,369	3,186.5	3,461
Share (%)	13.4	12.4	11.0	10.7	10.46	11.3
Asia[1] (excl. Japan)	1,736	2,682	4,640	5,224	5,784.8	6,021
Share (%)	21.2	21.1	23.4	23.5	18.99	19.6
Hong Kong	[illegible]	858	1,550	1,565	2,087.1	2,538
Share (%)	7.4	6.8	7.8	7.1	6.85	8.3
Saudi Arabia	125	322	545	719	727.7	590
Share (%)	1.5	2.5	2.8	3.2	2.39	1.9
Europe	1,092	1,633	3,121	2,590	3,063.8	2,977
Share (%)	13.4	12.9	15.8	11.6	10.06	9.7
West Germany	422	573	1,076	788	868.1	805
Share (%)	[illegible]	4.5	5.4	3.6	2.85	2.6
Others	[illegible]	1,791	3,116	3,263	3,553.6	3,492
Share (%)	14.8	14.1	15.7	14.7	11.67	11.4
Canada	314	327	460	510	916.3	945
Share (%)	3.8	2.6	2.3	2.3	3.01	3.1

Note: 1) Asia includes Middle and Near East.

Sources: Economic Research Department, The Central Bank of China, Republic of China, *Graphical Survey of the Economy of Taiwan District, The Republic of China* (June 1986); Council for Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985*; Department of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports and Imports, The Republic of China (Taiwan District), April 1986, No. 200* (June 20, 1986).

Table 5-14
ORIGIN OF TAIWAN'S IMPORTS, 1976-1985
(Millions of US Dollars)

Country or Area	1976	1978	1980	1982	1984	1985
Total	7,599	11,027	19,733	18,888	21,959.1	20,102
Japan	2,452	3,678	5,353	4,780	6,442	5,549
Share(%)	32.3	33.4	27.1	25.3	29.3	27.6
USA	1,798	2 376	4,674	4,563	5,042	4,746
Share(%)	23.7	21.6	23.7	24.2	23.0	23.6
Asia[1](excl.Japan)	1,926	2,777	6,182	5,224	5,585	4,942
Share(%)	25.4	25.2	31.3	27.7	25.4	24.6
SaudiArabia	409	649	1,419	1,969	1,971	1,362
Share(%)	5.4	5.9	7.2	10.4	9.0	6.8
Kuwait	680	793	2,241	1,282	728	670
Share(%)	9.0	7.2	11.4	6.8	3.3	3.3
Europe	835	1,268	1,861	2,116	2,380	2,443
Share(%)	11.0	11.5	9.4	11.2	10.8	12.2
West Germany	352	412	722	788	768	847
Share(%)	4.6	3.7	3.7	4.2	3.5	4.2
Others	589	927	1,664	2,205	2,510	2,422
Share(%)	7.8	8.4	8.4	11.7	11.4	12.1
Canada	56	106	249	316	400	369
Share (%)	0.7	1.0	1.3	1.7	1.8	1.8

Notes: 1) Asia includes Middle and Near East.

Sources: Economic Research Department, The Central Bank of China, Republic of China, *Graphical Survey of the Economy of Taiwan District, The Republic of China* (June 1986); Council for Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985*; Department of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports and Imports, The Republic of China (Taiwan District), April 1986, No. 200* (June 20, 1986).

major beneficiaries of such non-discriminatory measures. They believe that Japanese firms are simply more competitive than American firms in most areas in the Taiwan market. Accordingly, Taiwan's government and business leaders have therefore argued that some sort of "special" trading relationship with the United States, which would allow them to discriminate in America's favor, is necessary. While the trade data described below would appear to support such an approach, there are serious flaws with it, as is discussed later.

a. Taiwan-U.S. Trade

The United States is by far Taiwan's most important trading partner (see Tables 5-15 to 5-17). It is Taiwan's dominant export market (accounting for 48 percent of the R.O.C.'s exports in 1985) and the second largest source of its imports (about 24 percent came from the U.S. in 1985). Taiwan's rapid export-based growth would have been impossible without the largely unrestricted access to the U.S. market that it enjoyed throughout the 1960s for its exports of textiles, shoes, consumer electronics, and other products.

During the 1980s, Taiwan's exports to the United States have continued to grow rapidly, while imports from the U.S. have slowed dramatically. Despite the R.O.C. government's efforts to diversify its export markets, the United States' share of Taiwan's exports has risen from 34 percent in 1980 to 48 percent in 1985, while the U.S. share of Taiwan's imports has remained around 23 percent. The result has inevitably been a massive increase in Taiwan's trade surplus with the United States, from US $2 billion in 1980 to about US $10 billion in 1985. During 1986, the surplus grew 35 percent to reach US $13.5 billion.[14]

In part, the bilateral trade surplus reflects the changing composition of U.S.-Taiwan trade. American exports to Taiwan consist largely of agricultural products, machinery, transportation equipment, and chemicals and pharmaceuticals (see Table 5-18). Agricultural products, which have shown a declining trend as a share of total U.S. exports to Taiwan, still accounted for 25 percent of the United States' exports to the island in 1985 — largely corn, wheat, soybeans, barley, and raw cotton.[15] American exports of machinery and transportation equipment have also declined as a share of total U.S. exports to Taiwan. This stems largely from the collapse of investment growth in Taiwan in recent years, as well as some selective import-substitution policies in heavy industry, especially transportation equipment. For example, as Taiwan's domestic motor vehicle production rose from 31,000 to 171,000 units between 1975 and 1984, U.S. exports of transportation equipment declined from US $72 million to US $37 million.[16]

Taiwanese exports to the United States consist largely of textiles and clothing, shoes, electrical machinery and apparatus, rubber and plastic products, metal manufactures, and other types of manufactures (see Table 5-19). In recent years, almost every export category has shown some growth. The largest growth, however, was clearly in

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[14] Julia Leung, op. cit. It is worth noting that Taiwan's trade surplus with the U.S. would be slightly reduced if American arms sales to the island were included. However, these sales do not constitute a significant share of the surplus anymore and the impact of their inclusion on the figures would be minimal.

[15] The share of agricultural products in total U.S. exports has been declining with falling world prices and with the typical shift of consumption patterns, as Taiwan's national income has increased. Between 1975 and 1984, the share of soybeans, wheat, and raw cotton declined from 26.4 percent to only 13.9 percent.

[16] Chu-yuan Cheng, "United States-Taiwan Economic Relations: Trade and Investment," *Columbia Journal of World Business* (Spring 1986), p. 89. It should be noted that U.S. firms, such as General Motors, have played a major role in Taiwan's automobile industry, along with such Japanese giants as Toyota.

Table 5-15
TAIWAN'S TRADE WITH THE U.S., 1962-1985
(Millions of US Dollars)

Year	Exports		Imports		Total Trade		
	Amount	Growth Rate %	Amount	Growth Rate %	Amount	Growth Rate %	Surplus or Deficit
1962	53	—	115	—	169	—	− 62
1963	54	+1	151	+30	204	+21	− 97
1964	81	+50	139	−8	220	+7	− 58
1965	96	+19	176	+27	272	+24	− 81
1966	116	+21	266	−6	282	+4	− 50
1967	168	+45	247	+49	415	+47	− 79
1968	278	+66	239	−3	518	+25	+ 39
1969	399	+43	292	+22	691	+33	+ 107
1970	564	+41	364	+25	928	+34	+ 200
1971	859	+52	408	+12	1,267	+37	+ 451
1972	1,251	+46	543	+33	1,795	+42	+ 708
1973	1,677	+34	955	+75	2,630	+46	+ 725
1974	2,037	+21	1,680	+76	3,717	+41	+ 357
1975	1,823	−10	1,652	−2	3,475	−6	+ 171
1976	3,039	+67	1,798	+9	4,836	+39	+ 1,241
1977	3,636	+20	1,964	+9	5,600	+16	+ 1,672
1978	5,010	+38	2,376	+21	7,386	+32	+ 2,634
1979	5,652	+13	3,381	+42	9,033	+22	+ 2,271
1980	6,760	+20	4,673	+38	11,434	+27	+ 2,087
1981	8,163	+21	4,766	+2	12,929	+13	+ 3,397
1982	8,759	+7	4,563	−4	13,322	+3	+ 4,196
1983	11,334	+29	4,646	+2	15,980	+20	+ 6,687
1984	14,868	+31	5,042	+9	19,909	+25	+ 9,826
1985	14,773	−1	4,746	−6	19,519	−2	+ 10,027

Note: Taiwan's imports of U.S. goods do not include the value of the arms sales made to the island by the United States.

Sources: Council for Economic Planning & Development, Republic of China, *Taiwan Statistical Data Book 1985*; Board of Foreign Trade, Ministry of Economic Affairs, Republic of China, *Two–Way Trade Statistics Between USA and the Republic of China* (1986).

Table 5-16
GROWTH OF U.S.-TAIWAN TRADE, 1962-1985
(Average Annual Percentage Change)

Period	Total U.S.-ROC Trade	Exports to U.S.	Imports from U.S.
1962-72[1]	+27	+37	+17
1972-82	+22	+21	+24
1980-85	+11	+17	+0.3

Note: 1) Compound average annual growth over period. Source: Table 5-15.

Table 5-17
THE ROLE OF THE U.S. IN TAIWAN'S TRADE, 1952-1985
(Percentages)

Year	ROC Trade with US as Share of Total Trade	ROC Exports to US as Share of Total Exports	ROC Imports from US as as Share of Total Imports
1952	29.5	3.5	45.7
1953	24.9	4.2	38.7
1954	33.8	5.4	46.4
1955	31.1	4.4	47.5
1956	28.2	5.6	42.0
1957	24.9	3.5	39.9
1958	24.9	6.2	37.3
1959	24.6	8.6	36.1
1960	28.6	11.5	38.1
1961	33.6	21.9	40.6
1962	32.3	24.4	37.9
1963	29.5	16.2	41.6
1964	25.5	18.6	32.5
1965	27.0	21.3	31.7
1966	24.4	21.6	26.7
1967	28.7	26.2	30.7
1968	30.6	35.2	26.5
1969	30.5	38.0	24.1
1970	30.9	38.1	23.9
1971	32.5	41.7	22.1
1972	32.6	41.9	21.6
1973	31.8	37.4	25.1
1974	2[illegible].5	36.1	24.1
1975	30.9	34.3	27.8
1976	30.7	37.2	23.6
1977	31.3	38.8	23.1
1978	31.1	39.5	21.5
1979	29.2	35.1	22.9
1980	28.9	34.1	23.7
1981	29.5	36.1	22.5
1982	32.4	39.4	24.2
1983	35.2	45.1	22.9
1984	37.9	48.8	22.9
1985	38.4	48.0	23.6

Sources: Council for Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985*; Board of Foreign Trade, Ministry of Economic Affairs, Republic of China, *Two-Way Trade Statistics Between USA and the Republic of China* (1986).

Table 5-18
TAIWAN'S IMPORTS FROM THE UNITED STATES, 1985
(Millions of US Dollars)

Commodity	Value	Share of Total (Percentages)
Farm Products	1,197	25.2
Energy Minerals	198	4.2
Processed Food	171	3.6
Pulp, Paper, Allied Products	149	3.1
Chemicals	634	13.4
Chemical Products	219	4.6
Basic Metals	207	4.4
Machinery	313	6.6
Electrical Machinery and Apparatus	743	15.7
Special Commodities	383	8.1
Others	531	11.2

Source: Board of Foreign Trade, Ministry of Economic Affairs, Republic of China, *Two-Way Trade Statistics Between USA and the Republic of China* (1986)

Table 5-19
TAIWAN'S EXPORTS TO THE U.S., 1985
(Millions of US Dollars)

Commodity	Value	Share of Total (Percentages)
Wearing Apparel and Other Clothing	2,209	15.0
Leather, Fur, and Articles thereof	750	5.1
Wood, Bamboo, and Rattan Products	763	5.2
Rubber & Plastic Products	1,767	12.0
Non-Metallic Mineral Products	309	2.1
Metal Products	1,197	8.1
Machinery	503	3.4
Electrical Machinery & Apparatus	3,593	24.3
Transportation Equipment	759	5.1
Other Manufactures	1,895	12.8
Others	1,028	6.9

Source: Board of Foreign Trade, Ministry of Economic Affairs, Republic of China, *Two-Way Trade Statistics Between USA and the Republic of China* (1986).

the electrical machinery and apparatus category, which rose from US $397 million in 1975 to US $3,593 million in 1985. As discussed below, this is also the largest sector for both Japanese and American foreign direct investment in Taiwan. Other high growth export categories included transportation equipment and metal manufactures. Textile and clothing exports, while increasing in absolute terms (from US $513 million in 1975 to over US $2 billion in 1984 and 1985) declined sharply as a percentage of total R.O.C. exports to the United States — from 28.2 percent in 1975 to 15 percent in 1985.[17]

b. Taiwan-Japan Trade

The other side of Taiwan's growing dependence on the United States, of course, is that the rest of the world has played a declining role in the country's trade. Japan, in particular, has declined in importance as a trading partner for Taiwan. Although Japan is Taiwan's second largest export market, its share in Taiwan's total exports remains small compared with the United States. Indeed, over time there has been a striking decline in the R.O.C.'s exports to Japan as a share of its total exports (from 52.6 percent in 1952 to 11.3 percent in 1985). Japan remains the largest source of Taiwan's imports, even though the share of imports from Japan dropped also (from 31.2 percent to 27.6 percent). (Taiwan's trade with Japan is outlined in Tables 5-20, 5-21, and 5-22.) Taiwan's trade deficit with Japan has also declined, from US $3.2 billion in 1981 to US $2.1 billion in 1985. For 1986, however, it is expected that Taiwan's bilateral deficit with Japan will increase to US $3 billion — probably due to the increasing cost of Japanese imports, which have not dropped off significantly, despite their rise in price.[18] In the long-run, of course, the appreciation of the yen should reduce Japan's exports to the R.O.C. and perhaps raise Taiwan's exports in turn, thereby reducing the deficit. Still, any rapid reversal in Taiwan's long-time bilateral trade deficit with Japan is unlikely.

Japan's declining role in Taiwan's trade can be traced to the changing composition of the R.O.C.'s exports (Table 5-11). As long as Taiwan's exports consisted of raw and processed agricultural products, Japan was its largest market. But, when it shifted to exports of manufactures, Taiwan ran into the same barriers in the Japanese market that the United States and other developed countries faced. As a result, manufactured goods accounted for only 55 percent of R.O.C. exports to Japan in 1984 (Table 5-23). Although raw and processed agricultural products accounted for only 6.1 percent of Taiwan's total exports in 1984, they amounted to 39.8 percent of Taiwan's exports to Japan. Products in which one would expect Taiwan to have a clear comparative advantage over the Japanese, such as textile products, electrical appliances, and footwear, were all dwarfed by Taiwan's exports of fish and shellfish to the Japanese market. Taiwan's inability to export significant quantities of its most competitive products to Japan is one basic cause of its trade deficit with Japan and a contributing factor to the excessive size of its trade surplus with the United States.

There is doubtless some room for a reduction in Taiwan's imports from Japan, by switching to American suppliers. With the exception of agricultural products, the United States and Japan supply competitive products — mainly machinery and equipment — to Taiwan (Table 5-24). Yet despite the recent large rise in the value of the

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[17] Ibid.

[18] American Institute in Taiwan, op. cit.

Table 5-20
TAIWAN'S TRADE WITH JAPAN, 1962-1985
(Millions of US Dollars)

Year	Exports		Imports		Total Trade		
	Amount	Growth Rate %	Amount	Growth Rate %	Amount	Growth Rate %	Surplus or Deficit
1962	52	—	104	—	156	—	−52
1963	105	+102	107	+3	212	+36	−2
1964	134	+27	149	+39	283	+33	−15
1965	138	+3	221	+49	359	+27	−83
1966	129	−6	251	+14	380	+6	−123
1967	115	−11	326	+30	441	+16	−211
1968	128	+11	362	+11	490	+11	−234
1969	158	+23	536	+48	693	+42	−378
1970	216	+37	653	+22	868	+25	−437
1971	245	+14	827	+27	1,072	+23	−582
1972	377	+54	1,046	+26	1,423	+33	−669
1973	824	+119	1,428	+36	2,251	+58	−604
1974	844	+2	2,215	+55	3,059	+36	−1,371
1975	694	−18	1,812	−18	2,506	−18	−1,118
1976	1,095	+58	2,451	+35	3,546	+41	−1,357
1977	1,120	+2	2,643	+8	3,763	+6	−1,523
1978	1,570	+40	3,678	+39	5,248	+39	−2,108
1979	2,249	+43	4,561	+24	6,810	+30	−2,313
1980	2,173	−3	5,353	+17	7,527	+10	−3,180
1981	2,454	+13	5,929	+11	8,383	+11	−3,474
1982	2,369	−3	4,780	−19	7,149	−15	−2,411
1983	2,477	+5	5,587	+17	8,064	+13	−3,110
1984	3,186	+29	6,442	+15	9,628	+19	−3,255
1985	3,461	+9	5,549	−14	9,010	−6	−2,088

Sources: Council for Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985*; Department of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports and Imports, The Republic of China (Taiwan District), April 1986, No. 200* (June 20, 1986).

Table 5-21
GROWTH OF ROC-JAPAN TRADE, 1962-1985
(Annual Percentage Growth)

Period	Total ROC-Japan Trade	Exports to Japan	Imports to Japan
1962-72[1]	+25	+22	+26
1972-82	+17	+20	+16
1980-85	+4	+10	+1

Note: 1) Compound average annual growth over period. Source: Table 5-20

Table 5-22
JAPAN'S ROLE IN TAIWAN'S TRADE, 1952-1985
(Percentages)

Year	ROC's Trade with Japan as Share in Total Trade	ROC Exports to Japan as Share in Total Exports	ROC Imports from Japan as Share in Total Imports
1952	39.4	52.6	31.2
1953	36.6	45.5	30.6
1954	38.8	50.8	33.4
1955	51.5	59.5	30.5
1956	36.6	37.2	36.3
1957	34.0	24.6	33.2
1958	40.5	28.9	39.5
1959	40.8	41.5	40.3
1960	36.2	37.7	35.3
1961	30.2	28.9	31.0
1962	29.8	23.8	34.1
1963	30.6	31.7	29.7
1964	32.8	30.9	34.8
1965	35.7	30.6	39.8
1966	32.8	24.0	40.4
1967	30.5	17.9	40.5
1968	28.9	16.2	40.0
1969	30.6	15.0	44.2
1970	28.9	14.5	42.8
1971	27.5	11.9	44.8
1972	25.9	12.6	41.6
1973	27.2	18.4	37.6
1974	24.3	15.0	31.8
1975	22.3	13.1	30.4
1976	22.5	13.4	32.3
1977	21.1	12.0	31.0
1978	22.1	12.4	33.4
1979	22.0	14.0	30.9
1980	19.0	11.0	27.1
1981	19.1	10.8	28.0
1982	17.4	10.7	25.3
1983	17.8	9.9	27.5
1984	18.4	10.5	29.3
1985	17.7	11.3	27.6

Sources: Council for Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985*; Dept. of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports and Imports The Republic of China (Taiwan District)*, April 1986, No. 200 (June 20, 1986).

Table 5-23
TAIWAN'S EXPORTS TO JAPAN, 1984
(Millions of US Dollars)

Commodity	Value	Share of Total (Percentages)
Total	3,204	100.0
Total Foodstuffs	1,029	32.1
Fish & Shellfish	502	15.7
Fruits & Vegetables	282	8.8
Raw Materials	248	7.7
Animal & Vegetable Raw Materials	111	3.5
Petroleum Products	124	3.9
Manufactured Goods	1,768	55.2
Chemicals	125	3.9
Electrical Machinery	323	10.1
Textile Products	388	12.1
Iron & Steel	183	5.7
Furniture	124	3.9
Footwear	105	3.3
Re-Imports & Unclassified Commodities	35	1.1

Source: Japan External Trade Organization, *White Paper on International Trade: Japan 1985*.

yen against the US dollar. Japanese equipment remains highly competitive and Japanese firms retain many advantages in the Taiwan market, such as close business relationships with many Taiwanese business executives, geographical proximity, thorough knowledge of the market, and an excellent after sales service network. Japan will, therefore, retain a significant share of the Taiwan market despite the rise of the yen. If Taiwan is to reduce its trade deficit with Japan significantly, it must, therefore, expand its exports to Japan. An increase in Taiwan's exports to Japan would also reduce its dependence on, as well as its trade surplus with, the United States. Although Taiwan's exports to Japan have increased significantly in 1986, the value of its imports have grown even faster. Once the impact of the appreciation is fully felt, import growth may slow, but significant barriers to large increases in Taiwanese exports to Japan will remain. It will not be a simple task for the Taiwanese to penetrate the Japanese market; but it is necessary.

Table 5-24
TAIWAN'S IMPORTS FROM JAPAN, 1984
(Millions of US Dollars)

Commodity	Value	Share of Total (Percentages)
Total	6,442	100.0
Textile Products	221	3.42
Iron & Steel	980	15.22
Machinery & Tools[1]	3,056	47.45
(Inc. Electrical Machinery and Apparatus)	(1,783)	(27.68)
Transportation Equipment	441	6.85
Chemicals & Pharmaceuticals	801	12.43
Metal Manufactures	92	1.43
Others	850	13.19

Note: 1) Total for this category includes "electrical machinery and apparatus," which is separated just below.

Source: Council for Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985*.

3. Other Markets

Taiwan's third largest export market is Hong Kong (8 percent of Taiwan's exports in 1985).[19] Hong Kong serves mainly as an entrepot for Taiwan's exports to other countries. In particular, it has served as the major center for Taiwan's indirect trade with mainland China. The rapid growth of Taiwan's exports to Hong Kong is due largely to an expansion of demand in the P.R.C. market, as Deng Xiaoping's economic reforms have taken hold. Since 1978, when Hong Kong re-exported only 0.6 percent of its exports of Taiwanese origin to the P.R.C., the share of this market in Hong Kong's re-exports of Taiwanese origin rose to 65 percent in 1981, then fell to 48 percent in 1983. By contrast, less than 4 percent of Hong Kong's re-exports of P.R.C. origin went to Taiwan, a share that has declined over time (Tables 5-25 and 5-26).[20]

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[19] Taiwan's exports to Hong Kong have increased enormously in recent years. In 1979, Taiwan's exports to Hong Kong exceeded US $1 billion for the first time; by 1985, they topped US $2.5 billion. Since imports have grown at a much slower rate, Taiwan has been able to enjoy an increasing trade surplus with Hong Kong.

[20] Teh-pei Yu, "An Analysis of Economic Ties Linking Hong Kong, PRC and ROC — with Special Reference to Trade," *Issues and Studies*, Vol. 22, No. 6 (June 1986), p. 157.

Indeed, since 1980, Taiwan has become the leading source of Hong Kong's re-exports to mainland China. Taiwan's dominant role in Hong Kong's re-export trade can be attributed to several factors: the close ties that exist between Hong Kong and Taiwanese traders, the competitiveness of Taiwan's products compared to its main competitors for the P.R.C. market, Japan and South Korea, and the complementary nature of trade with mainland China.[21] In addition, the P.R.C. has encouraged indirect trade with the R.O.C. through Hong Kong and Macao, as part of its reunification strategy. The mainland may become one of the R.O.C.'s biggest markets in the future, although after 1997 the R.O.C. will have to look for a new transshipment center to replace Hong Kong. The most obvious candidate is Singapore. There is, in fact, evidence to indicate that the city-state is already positioning itself to play such a role.

Historically, Western Europe as a whole has not played a major role in Taiwan's trade, although it has become more important over time. Taiwan's imports from Western Europe averaged just 9 percent of its total imports in the 1950s and 1960s, and 12 percent in the 1970s, while its exports to Western Europe rose from 6 percent of total exports in the 1950s to 13 percent in the 1970s. As a result, the R.O.C., which had suffered from a trade deficit with the Western European countries in the 1950s, had handily reversed that situation by the 1970s.[22] Taiwan's trade with Western Europe has been sluggish in the 1980s due to slow economic growth in Western Europe. Relatively stagnant export growth has led to a decline in the share of Western Europe in Taiwan's exports — from nearly 16 percent in 1980 to just under 10 percent in 1985. Despite this fact, however, Taiwan has maintained a trade surplus with the European Community.[23]

The relatively minor role of Western Europe in Taiwan's trade can be traced to a number of factors. A lack of historical ties combined with geographical distance have served to make the Western European market seem more foreign, especially given the differences in language, behavior, and lifestyles that exist within Europe. The New Taiwan Dollar (NT$), which has been maintained at an artificially low rate relative to the value of the US dollar in recent years, has been overvalued relative to the major Western European currencies, tending to make Taiwan's exports more expensive than its competitor's goods. In addition, numerous tariff and non-tariff barriers block R.O.C. exports to Western Europe. Taiwan's relations with the Western European countries were also more severely damaged by derecognition than its ties to either the United States or Japan, since the Europeans were more concerned about offending the P.R.C. and did not have the close traditional ties with Taiwan possessed by the Americans and the Japanese. Finally, there has been a lack of information available to Taiwanese exporters about potential trading partners in Europe as well as about the business environment in the Western European countries.[24] These factors, combined with Western Europe's relatively slow economic growth, have made it difficult to raise Taiwan's exports to Western Europe.

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[21] See Data Appendix Table 5-X for supporting data on Taiwan's competitive advantage. P.R.C. exports to Taiwan are heavily dominated by crude animal and vegetable materials. In contrast, R.O.C. exports to the mainland are almost entirely manufactured goods. See Annex Tables 5-XI and 5-XII for data on the structure of R.O.C.-P.R.C. trade.

[22] Chung-lih Wu, "Trade Relations Between the ROC and European Countries in the Twentieth Century," *Economic Review (International Commercial Bank of China, ROC)*, No. 232 (July-August 1986), pp. 22-23.

[23] R.O.C. exports to Western Europe are mainly light manufactures such as textile products, ready-made garments, footwear, electric and electronic items, machinery and equipment, canned food, umbrellas, handicrafts, and wood, bamboo, and rattan products. Taiwan's imports from Western Europe include mainly capital- and technology-intensive items, such as machinery, tools, electrical machinery and equipment, chemicals, and transportation equipment. Taiwan's largest Western European trading partner has consistently been West Germany. See ibid., p. 23; and Roy A. Werner, "Taiwan's Trade Flows: The Underpinning of Political Legitimacy?," *Asian Survey*, Vol. XXV, No. 11 (November 1985), p. 1103.

In recent months, however, Taiwan's exports to the European Community have grown enormously. In the first nine months of 1986, Taiwan's exports to the EC jumped some 50 percent over the pace set in 1985.[25] This increase reflects the impact of both the depreciation of the US dollar (and hence the NT$) against the major European currencies and Taiwanese government promotion efforts to diversify the nation's export markets. It also reflects relatively recent European efforts to establish closer economic relations with Taiwan.

Because Taiwan must rely on oil imports for its principal energy supplies, the Middle Eastern countries have played an important role in Taiwan's trade. Between 1973 and 1983, the value of Taiwan's trade with the Middle East increased enormously — with imports from the Middle East rising from 3.6 percent to 18.1 percent of total imports and exports to the region increasing from 1.7 percent to 6.0 percent.[26] Saudi Arabia and Kuwait have become two of the principal sources of Taiwan's imports, while Saudi Arabia has also become one of its top export markets. The R.O.C. continues to experience trade deficits with the Arab oil exporters, but they are much reduced because of the recent decline of oil prices.

4. Conclusion: The Implications of Recent Macroeconomic Trends

In recent months, several factors have led to increased export orders in non-U.S. markets. As the US dollar has weakened against the Western European and Japanese currencies, Taiwanese products have become more competitive in those markets. In addition, expanding growth, combined with lower oil prices, has now generated increased demand in these markets, as well as in the United States. Finally, some of the orders may be due to inventory buildup, with buyers concerned to mitigate the impact on their businesses of possible protectionist legislation. These most recent developments thus offer the hope that the R.O.C. may be able to reduce somewhat its export dependence on the U.S. market.

An extremely important recent development is the appreciation of the Japanese yen against the US dollar. The rapid appreciation of the yen — which has risen from Y240 : US $1 in September 1985 to Y152 : US $1 by February 1987 — has increased the competitiveness of Taiwan's exports to Japan. As indicated above, Taiwan's exports to Japan have grown significantly in the past year. The appreciation of the yen has also forced Japanese manufacturers to increase foreign sourcing of parts and, therefore, to move some manufacturing operations overseas in order to preserve their competitiveness. Since July and August 1986, Japanese foreign investments in Taiwan have increased significantly.[27] Most of these investments have been in the electronics, machinery, and automobile sectors. While it is too early to assess the full impact of these developments, such a reorientation of Japanese investment policy could significantly reduce the R.O.C.'s deficit with Japan, as well as divert some of its exports from the U.S. market.

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[24] Chung-lih Wu, op. cit., pp. 21, 27.

[25] American Institute in Taiwan, op. cit.

[26] Roy A. Werner, op. cit., p. 1104.

[27] In the first six months of 1986, however, total foreign investment approvals were actually down 7.8 percent to US $245 million. American Institute in Taiwan, op. cit.

Taiwan desperately needs to diversify its export markets. Nevertheless, Taiwanese firms continue to have limited success at export-diversification and opening up new markets. The Western European market, for example, has not been developed fully by the Taiwanese. Developing countries in Latin America and Africa constitute another potentially large market that remains largely unexplored. Increased government efforts at providing information and support for marketing efforts in these areas might lead to some success. But there are significant barriers to exporting to these markets. The EC, most LDCs, and, of course, Japan all maintain higher trade barriers to foreign imports than the United States, which remains one of the most open markets in the world. In addition, Taiwan's lack of diplomatic or official relations with most of its trading partners (except the United States and Japan which maintain *de facto* diplomatic relations with Taiwan) also affect Taiwan businessmen's ability to penetrate those markets. For a Taiwan businessman, it would take from one week to one month or longer to get a visa to visit most West European countries. In the case of the European countries, some of these difficulties have eased recently due to these nations' efforts to improve their unofficial economic relations with Taiwan. Nevertheless, difficulties remain — both with the European countries and other nations.

Furthermore, the small size of the typical Taiwanese firm inhibits the exploration of new markets. In 1981, year-end net assets averaged less than NT $15 million per Taiwanese firm across all sectors. In the manufacturing sector, year-end net assets averaged NT $22 million (or roughly US $600,000) per firm in 1981 (see Tables 5-27, 5-28, 5-29). The existence of large firms such as Tatung and Formosa Plastics, of course, skews the average — the typical firm is much smaller than these numbers indicate. With the exception of a very few firms like Tatung, therefore, most Taiwanese firms lack the resources necessary to establish a worldwide marketing network with sales and service offices abroad. In addition, they lack the resources to absorb the losses that are often incurred in the exploration of new markets. Tatung, for example, which now claims a balanced trade with Japan as a company, had to accept losses for ten years before establishing a reputation for quality products and beginning to make significant sales in that difficult market. While few markets are as difficult to penetrate as Japan, most market penetration efforts are costly in the initial stages. Small firms cannot absorb such costs. It is, therefore, not surprising that a large percentage of Taiwan's exports are actually marketed by foreign corporations, such as Japanese trading companies, American corporations based in Taiwan, and importers for American retail chains. Taiwanese firms, therefore, not only lose the value-added from the marketing of their products, but they also have little control over where they go. They consequently have limited ability to respond to protectionist pressures in their major markets or to explore new markets.

The government has identified the small size of the typical Taiwanese firm as a barrier to Taiwan's long-term competitiveness. Government efforts to encourage mergers and the formation of large trading companies, however, have not met with notable success. Still, there is a slow trend over time towards increasing concentration in Taiwan's corporate sector (see Table 5-29). In the long-run, this trend may improve the marketing capabilities of the average Taiwanese firm and enhance the ability of these firms to diversify into new export markets.

The government could accelerate the development of larger firms by removing impediments to firm growth — especially through financial market reform. The heavy dependence of all but the largest companies on the "unorganized" money market, because of local banks' insistence upon physical collateral, has inhibited the ability of smaller firms to raise the capital necessary for expansion. Smaller companies have to depend upon trust companies, cooperatives, and other institutions whose lending rates are considerably higher than those of the banks. The creation of more efficient vehicles for channeling Taiwan's large pool of savings into new investment by private industry could greatly stimulate firm growth.

D. International Investment

1. The Role of U.S. Aid

In the years after World War II, foreign capital inflows were critical to Taiwan's progress, and, as noted above, U.S. aid was its major component initially. American assistance was a direct result of the outbreak of the Korean war. Prior to the June 1950 invasion of South Korea by North Korea, the Truman administration, despite Republican pressure, had been unwilling to commit American prestige to the defense

Table 5-27
SCALE OF AVERAGE TAIWAN BUSINESS FIRM, 1976 and 1981

	1981	1976	Percent Change
Year-end business firms[1]	513,413	426,360	20.42
Year-end employment	4,410,702	3,719,913	18.57
Average employment per firm	8.59	8.72	−1.49
Year-end net assets in use[2]	7,639,214	2,988,217	155.64
Average year-end net assets in use[2]	14.88	7.01	112.27

Notes: 1) Counted by organizational entity. 2) Millions of NT Dollars.

Source: Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Republic of China. *The Report on 1981 Industrial and Commercial Census Taiwan-Fukien Area, The Republic of China*, June 1983.

Table 5-29

TAIWAN: GROWTH OF FIRMS OVER TIME

(Examines Business Scale by Time of Setting Up; Includes all firms still active at year-end 1981)

Date Established	Number of Business Firms Still Active[1]	Average Number of Employees Per Firm[1]	Average Assets Used Per Firm (NT $10,000)[1]	Average Annual Sales Per Firm (NT $10,000)[1]
Total	513,413	8.59	1,488	765
1945 & Before	3,327	57.23	49,698	9,126
1946 & Before	4,829	40.72	34,793	10,631
1951 & Before	7,421	16.87	2,633	1,912
1956 & Before	12,737	13.89	2,130	1,583
1961 & Before	26,759	11.47	3,795	1,516
1966 & Before	47,999	12.85	1,513	1,178
1971 & Before	56,566	9.43	835	790
1974	26,465	7.56	1,061	631
1975	27,828	8.14	626	526
1976	38,995	7.49	473	449
1977	33,067	7.50	417	455
1978	46,597	7.20	488	456
1979	58,756	5.86	372	362
1980	68,856	5.51	359	292
1981	53,211	4.47	291	157

Note: 1) All averages are for year-end 1981—i.e., firms established in "1945 & Before" as they were in 1981, etc.

Source: Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Republic of China, *The Report on 1981 Industrial and Commercial Census Taiwan-Fukien Area, The Republic of China*, June 1983.

Table 5-25
HONG KONG'S REEXPORTS OF TAIWAN ORIGIN TO MAINLAND CHINA, 1974-1984
(Millions of Hong Kong Dollars)

Year	Value of HK's REX of Taiwan Origin to Mainland China (at current prices)	Rate of Growth	Value of HK's REX of Taiwan Origin (at current prices)	Share of PRC in HK's REX of Taiwan Origin
1974	0.048	—	243.3	0.2
1975	0.068	41.0	191.2	0.4
1976	0.013	81.0	257.6	—
1977	0.154	1,085.0	362.1	0.4
1978	0.240	56.0	402.2	0.6
1979	106.517	44,282.0	898.1	11.9
1980	1,205.407	1,032.0	2,134.0	56.5
1981	2,182.308	81.0	3,379.0	64.6
1982	1,263.944	42.0	2,500.0	50.6
1983	1,226.541	3.0	2,573.0	47.7
1984	3,327.000	171.0		

Notes: REX = reexports; HK = Hong Kong

Source: Reported in Teh Pei Yu, "An Analysis of Economic Ties Linking Hong Kong, PRC, and ROC—with Special Reference to Trade," *Issues & Studies*, Vol. 22, No. 6 (June 1986), pp. 155-156.

Table 5-26
HONG KONG'S REEXPORTS OF MAINLAND CHINA ORIGIN TO TAIWAN, 1974-1984
(Millions of Hong Kong Dollars)

Year	Value of HK's REX of Taiwan Origin to Mainland China (at current prices)	Rate of Growth	Value of HK's REX of Taiwan Origin (at current prices)	Share of PRC in HK's REX of Taiwan Origin
1974	105.97	—	1,582.2	6.70
1975	129.17	22.0	1,743.0	7.41
1976	191.93	49.0	2,402.4	7.99
1977	142.77	-26.0	2,491.5	5.73
1978	218.44	53.0	3,659.0	5.97
1979	279.17	28.0	5,663.5	4.93
1980	390.54	40.0	8,393.0	4.65
1981	426.60	9.0	12,834.0	3.32
1982	546.05	28.0	14,694.0	3.72
1983	698.33	28.0	19,681.0	3.55
1984	990.00	43.0	—	—

Notes: REX = reexports; HK = Hong Kong.

Source: Reported in Teh-Pei Yu, "An Analysis of Economic Ties Linking Hong Kong, PRC, and ROC—with Special Reference to Trade," *Issues & Studies*, Vol. 22, No. 6 (June 1986), pp. 155-156.

Table 5-28

SCALE OF THE AVERAGE TAIWAN BUSINESS FIRM IN EACH SECTOR, 1981

	Year-end Employees		Year-end Net Assets In Use	
	No. of Persons	Index (Manufacturing/100)	Value (NT$ Million)	Index (Manufacturing/100)
Total	8.59	35.79	14.88	66.34
Mining & Quarrying	47.43	197.63	16.16	72.05
Manufacturing	24.00	100.00	22.43	100.00
Utilities	791.23	3,296.79	10,258.78	45,736.87
Construction	33.72	140.50	13.94	62.15
Commerce	3.12	13.00	2.81	12.53
Transportation, Storage & Communication	19.82	82.58	30.66	136.69
Services	5.52	23.00	46.71	208.25

Source: Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Republic of China, *The Report on 1981 Industrial and Commercial Census Taiwan-Fukien Area, The Republic of China*, June 1983.

of Taiwan, especially given the KMT's poor showing on the mainland.[28] The invasion of South Korea, however, triggered a reversal of the hands-off policy. Although a modest economic aid program for Taiwan had been approved earlier, large-scale military and economic aid started to flow into Taiwan in 1951 under the Mutual Security Act. Its immediate purpose was to stabilize the economy. As inflation was brought under control, however, the goal gradually shifted from economic stabilization to economic development. In 1957, the Development Loan Fund was established; and in 1962 the Agency for International Development (AID) was given the responsibility for administering economic aid. Total U.S. aid appropriated for Taiwan from 1951 to 1965 was US $1,459.3 million, of which a total of US $1,370.2 million was actually delivered (Table 5-30).[29]

The impact of this huge capital inflow on Taiwan's economy was enormous. Over the period ". . . from 1951 to 1965, U.S. aid accounted for 6 percent of total national income, 28 percent of gross domestic capital formation, 30 percent of total imports, and 125 percent of trade-deficits; delivered aid commodities accounted for 24 percent of imported capital goods, 32 percent of imported raw materials, and 18 percent of imported consumption goods; while the percentage of project aid in gross fixed capital formation was 5 percent for agriculture, 10 percent for mining and manufacturing, 17 percent for electricity and transportation, and 6.6 percent for 'other categories'."[30] Overall, it has been argued that "U.S. aid more than doubled the annual rate of growth of Taiwan's GNP, quadrupled the annual growth of per capita GNP, and cut thirty years from the time needed to attain 1964 living standards."[31] Whether or not such claims are true, clearly, ". . . U.S. aid helped greatly to increase the volume of national income and capital formation, both in total and by category."[32]

In addition to the direct contributions made by American financial support, the United States, through its ability to attach "strings" to its aid, also helped to influence government economic policy in Taiwan. Throughout the aid period, the U.S. aid authority added its influence to support the position of those in the Taiwanese government who were attempting to pursue economic stabilization and development policies. Most importantly, American influence helped convince the Taiwan government to support the development of a strong private sector. According to Neil Jacoby ". . . without the intervention of AID [The Agency for International Development], private enterprise would not have become, by 1965, the mainspring in Taiwan's economy."[33] While many Taiwanese also favored a private sector approach, it is true that AID played a critical role. AID financed infrastructure investments (e.g., electricity and transportation) that created external economies and directly financed the expansion of private industries. It also put steady pressure on the Taiwanese government to improve the private investment climate and helped implement the policies it supported.[34]

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[28] In December 1949, the State Department had issued a confidential policy memorandum which indicated that the administration anticipated the imminent fall of Taiwan to the CCP's forces. The Joint Chiefs of Staff, although concerned about the serious damage the loss of Taiwan could do to the U.S. strategic position in Asia, were unwilling to recommend U.S. military intervention to keep Taiwan out of communist hands, because of the enormous scale of involvement that might be required and the potentially more urgent needs elsewhere for the limited forces they had at their disposal following the demobilization of the U.S. military after World War II and congressional budget cuts. The Korean conflict, of course, changed the budgetary picture and increased the strategic importance of Taiwan. See: Ralph N. Clough, *Island China* (Cambridge, MA: Harvard University Press, 1978), pp. 7-8.

[29] Mo-Huan Hsing, *Taiwan: Industrialization and Trade Policy* (London: Oxford University Press, 1978), pp. 191-192.

[30] Ibid., p. 196.

[31] Neil H. Jacoby, *U.S. Aid to Taiwan: A Study of Foreign Aid, Self-Help, and Development* (New York, NY: Praeger, 1966), p. 152.

[32] Mo-Huan Hsing, op. cit., p. 196.

[33] Jacoby, op. cit., p. 138.

Although American military aid continued at a fairly high level throughout the 1960s, economic aid on concessional terms was phased out in 1965. It was no longer necessary. In the aftermath of the program, Taiwan was often pointed to as a source of pride for U.S. aid officials as "...the first developing nation to 'graduate' from the U.S. economic aid program."[35] After the success of the aid program, American interests in Taiwan became less purely political-strategic. Trade between Taiwan and the United States expanded enormously, and the R.O.C. became a very attractive location for American foreign investment, leading to a shift in the nature of capital inflows.

2. *Foreign Investment Inflows*

Following the termination of U.S. aid in 1965, the main form of foreign capital flow into Taiwan became foreign direct investment. Foreign investment has made far-reaching contributions to Taiwan's economic development and has been vigorously solicited by Taiwan. In contrast to their Japanese and South Korean neighbors, the Taiwanese have been more pragmatic than nationalistic with respect to foreign investment — even in the early stages of their development. Without doubt, this is at least partially due to American influence. Various incentives — together with Taiwan's economic performance, comparative advantages, and strategic location as a sourcing site — have led to an increasing inflow of foreign investment into Taiwan. Over the course of the period from 1952 to 1985, overseas Chinese and foreign direct investment in Taiwan totaled US $5,160 million — excluding the overseas Chinese, the total would be US $3,985 million.

Over the entire period from 1953 to May 1986, 42.34 percent of total foreign investment was from the United States, 29.23 percent from Japan, 13.48 percent from Western Europe, and 14.94 percent from elsewhere (Table 5-31). Most of these investments occurred after 1965. Although the amount of foreign direct investment fluctuated greatly from year-to-year, an upward trend is clearly visible. The bulk of foreign investment occurred in the electronics sector (29.5 percent), followed by chemicals (17.9 percent) and services (11.5 percent) (see Table 5-32). American and Japanese investment — not surprisingly since they are the largest investors — mirrored this overall pattern (see Table 5-33). Both countries' investment is concentrated heavily in electronics (especially the U.S. portion). In general, however, Japanese investment is spread more broadly than American investment.

Typically, American investment in Taiwan is more capital-intensive than Japanese investment. For example, in 1983, American firms had 72,405 employees, and Japanese firms had 113,317 workers, while the average operating assets for American companies were four times those of Japanese companies, and U.S. operating capital was three and a half times larger than that of Japanese firms. The average U.S. firm is thus larger and engaged in more capital-intensive production than the average Japanese

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[34] Ibid.

[35] Ralph N. Clough, op. cit., p. 24.

Table 5-32
FOREIGN INVESTMENT IN TAIWAN BY INDUSTRY, 1952-1985
(Millions of US Dollars)

Industry	Amount	Percentages
Total	5,160	100.0
Electronic & Electric Products	1,521	29.5
Chemicals	922	17.9
Services	596	11.5
Machinery & Instruments	503	9.7
Non-Metallic Mineral Products	359	7.0
Metal Products	350	6.8
Banking & Insurance	233	4.5
Textiles	164	3.2
Others	512	9.9

Source: Council for Economic Planning and Development, Republic of China, *Economic Development: Taiwan, Republic of China* (April 1986).

firm.[36] On the other hand, from 1979 to 1982, Japanese firms spent five times more on R&D than did American firms. One reason may be the greater tendency of U.S. firms to retain 100 percent ownership and to hire their own nationals for upper-level management posts. This permits easier use of technology developed elsewhere, without fear of losses to competitors. In 1980, for example, 67 percent of U.S. firms engaged in the electronics industry retained 100 percent ownership, while only 36 percent of Japanese firms were wholly-owned at that time.[37] Inevitably, such statistics suggest quite different corporate strategies by American and Japanese multinationals operating in Taiwan.

Foreign direct investment has played an important role in Taiwan's development by providing training, technology transfer, and important political linkages, among other advantages. The actual economic impact of foreign direct investment in Taiwan, however, is difficult to measure. Still, some indicators are available (Table 5-34). While the actual monetary amount of foreign investment that has been invested is not enormous, it has clearly had a significant effect on Taiwan's economy. The most obvious impact of foreign investment has been on Taiwan's exports. Firms in which overseas Chinese and foreigners invested supplied over 25 percent of Taiwan's exports between 1978 and 1982, although their share fell to only 18 percent in 1983 — the last year for which we have data (see Table 5-35). U.S. firms alone have provided between 4 and 5 percent of Taiwan's total exports (Table 5-36). Although the foreign firms' share has clearly declined in recent years, they still account for a significant percentage of Taiwan's exports in several categories, including such important Taiwanese exports as electronics, textiles, plastic and rubber products, and machinery

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[36] Chu-yuan Cheng, op. cit., p. 94.
[37] Rong-i Wu, op. cit., p. 10.

Table 5-30
VARIOUS FORMS OF U.S. AID TO TAIWAN, 1951-1965
(Millions of US Dollars)

	General Economic Aid				
Fiscal Yr.	Defense Support Development Loan	Technical Cooperation/ Development Grant	Direct Force Support	Development Loan Fund	Surplus Agriculture Commodities PL480
1951-1955	386.6	6.5	110.6	—	3.5
1956-1960	339.4	15.3	34.7	50.3	83.5
1961-1965	138.6	8.7	2.4	16.7	262.5
1951-1965	864.6	30.5	147.7	67.0	349.5

Source: Mo-Huan Hsing, *Taiwan: Industrialization and Trade Policies*, (London: Oxford University Press, 1971), p. 192.

Table 5-31
FOREIGN INVESTMENT IN TAIWAN, 1953-MAY 1986
(Thousands of US Dollars)

Year	Total		USA		Japan		Europe		Other	
	Cases	Amount	Cases	Amount	Cases	Amount	Cases	Amount	Cases	Amount
1953-63	75	45,066	33	37,241	37	7,043	0	—	5	782
1964	13	11,890	7	10,196	2	728	1	150	3	816
1965	36	35,140	17	31,104	14	2,081	0	—	5	1,955
1966	52	20,904	15	17,711	35	2,447	2	746	0	—
1967	107	38,666	18	15,714	76	15,947	4	1,872	9	5,133
1968	122	53,445	20	34,555	96	14,855	2	1,762	4	2,273
1969	111	81,938	30	27,862	75	17,379	4	20,642	2	16.055
1970	71	109,165	16	67,816	51	28,530	3	10,713	1	2,106
1971	44	125,148	17	43,736	17	12,400	4	66,135	6	2,877
1972	52	100,190	17	37,307	26	7,728	4	6,842	5	48,313
1973	150	193,688	29	66,876	92	44,599	14	33,825	15	48,388
1974	83	108,736	21	38,760	50	38,901	3	14,761	9	16,314
1975	41	70,940	12	41,165	22	23,234	2	4,193	5	2,348
1976	45	102,032	8	21,767	26	30,760	2	32,796	9	16,709
1977	50	95,186	17	24,242	20	24,145	3	28,001	10	18,798
1978	66	136,719	18	69,765	43	50,336	1	4,468	4	12,150
1979	73	181,483	19	80,375	39	50,462	2	19,766	13	30,880
1980	71	243,380	15	110,093	35	86,081	11	14,428	10	32,778
1981	73	356,294	25	203,213	27	64,623	8	12,636	13	75,822
1982	82	320,286	33	79,606	24	152,164	11	46,570	14	41,946
1983	100	375,382	35	93,294	33	196,770	7	20,746	25	64,572
1984	100	518,971	41	231,175	28	113,978	15	92,242	16	81,576
1985	107	660,703	42	332,760	32	145,236	12	100,011	21	82,696
1986/ Jan-May	51	156,910	20	37,665	14	80,581	8	25,160	9	13,504
Total	1,775	4,142,262	525	1,753,998	914	1,211,008	123	558,465	213	618,791
Percent		100.0		42.34		29.23		13.48		14.94

Note: Annual Figures are yearly flow and total figures are accumulated investment. They do not include any data on overseas Chinese investment.

Source: Council for Economic Planning & Development, Executive Yuan, Republic of China, Taiwan Economic Statistics," *Industry of Free China* Vol. LXV, No. 6 (June 1986).

Table 5-33
U.S. & JAPANESE INVESTMENT IN TAIWAN BY INDUSTRY, 1952-1984
(Thousands of US Dollars)

	U.S.			Japan		
Industry	Case	Amount	Percent	Case	Amount	Percent
Fishery & Animal Husbandry	6	4,528	0.3	1	100	—
Food & Beverage Processing	22	33,764	2.0	23	10,169	1.0
Textile	1	2,089	1.5	28	32,646	3.3
Garment & Footwear	15	4,229	0.3	37	7,722	0.8
Lumber & Bamboo Products	6	778	—	17	4,649	0.5
Pulp & Paper Products	3	12,079	0.9	10	1,831	0.2
Leathers & Fur Products	8	1,807	0.1	9	1,013	0.1
Plastic & Rubber Products	19	24,711	1.8	68	57,948	6.0
Chemicals	78	245,209	17.6	92	82,273	8.4
Non-Metallic Minerals	11	6,533	0.5	40	15,704	1.0
Basic Metals and Products	42	72,831	5.0	155	96,764	9.8
Machinery Equipment & Instruments	39	57,461	4.0	84	217,705	22.1
Electronic & Electric Appliances	127	720,128	51.9	219	306,809	31.1
Construction	3	8,303	0.6	2	1,354	0.1
Trade	2	1,734	0.1	—	—	—
Banking & Insurance	11	40,147	2.9	1	1,040	0.1
Transportation	4	7,222	0.5	1	325	—
Services	40	126,727	9.0	22	111,756	11.3
Others	26	13,273	1.0	59	35,383	3.6

Source: Chu-yuan Cheng, "United States-Taiwan Economic Relations: Trade and Investment," *Columbia Journal of World Business* (Spring 1986), p.94.

Table 5-34
CONTRIBUTIONS OF OVERSEAS CHINESE AND FOREIGN INVESTMENT TO THE TAIWAN ECONOMY, 1982-1983

	1982	1983
Share of Total Exports (%)	25.08	18.19
Net Foreign Exchange Earnings (US $ million)¹	$2,023.00	$2,027.00
Contribution to GDP (%)	5.92	7.13
Contribution to Value-Added of Manufacturing Sector (%)	13.92	15.37
Contribution to Formation of Domestic Fixed Capital (%)	11.12	8.09
Contribution to Domestic Employment (%)	4.69	3.65
Contribution to Corporate Income Tax Revenues (%)	10.29	13.15

Notes: 1) After deduction of imported intermediate goods and spare parts.

Source: Chu-yuan Cheng, "United States-Taiwan Economic Relations: Trade and Investment," *Columbia Journal of World Business* (Spring 1986), p. 92.

Table 5-35
SHARE OF OVERSEAS CHINESE AND FOREIGN-INVESTED FIRMS IN TAIWAN'S EXPORTS, 1978-1983
(Percentages)

Industry	1978	1980	1982	1983
Food and Beverages	5.38	5.93	2.99	3.01
Textiles	53.90	53.98	38.33	31.38
Garments and Footwear	8.32	5.89	6.31	6.61
Lumber and Bamboo Products	6.72	4.79	3.93	2.14
Pulp and Paper Products	12.65	8.35	7.14	9.91
Leather and Fur Products	17.87	14.08	10.17	6.83
Plastic and Rubber Products	17.84	14.49	14.91	17.82
Chemicals	77.03	86.60	63.49	51.64
Non-metallic Minerals	19.10	14.19	26.95	54.61
Basic Metals and Metal Products	13.13	13.90	7.65	8.51
Machinery, Equipment, and Instruments	10.33	15.40	25.53	17.31
Electronic and Electric Appliances	82.58	64.52	65.20	42.28
All Industries	29.06	26.34	25.08	18.19

Source: Chu-yuan Cheng, "United Nations-Taiwan Economic Relations: Trade and Investment," *Columbia Journal of World Business* (Spring 1986), p. 92.

Table 5-36
U.S. FIRMS EXPORTS AND THEIR SHARE IN TOTAL INDUSTRY EXPORTS, 1978/80/82
(Billions of NT Dollars)

Industry	1978	1980	1982
Electronics & Electric Appliances			
Amount	21.5	21.2	25.0
Share (%)	27.6	16.4	16.5
Chemicals			
Amount	1.0	3.3	3.7
Share (%)	4.9	11.3	9.4
Basic Metals & Metal Products			
Amount	0.4	0.3	0.5
Share (%)	1.3	0.8	0.7
Machinery Equipment & Instruments			
Amount	0.4	0.6	1.1
Share (%)	0.8	0.9	1.2
U.S. Firms Exports			
Amount	26.6	29.5	37.9
Share (%)	5.7	4.1	4.4

Source: Rong-i Wu, "U.S. Direct Investment in Taiwan: An Economic Appraisal," *Economic Review (Taipei)*, No. 229 (Jan.-Feb. 1986), p. 7.

equipment and instruments. Foreign investment has obviously been a major factor behind Taiwanese export expansion.

It is not surprising that foreign investors in Taiwan have been major exporters. Given the small size of Taiwan's domestic market, the main motivation for locating in Taiwan stems from its strength as either a sourcing site or an export base. For example, export ratios of U.S. firms ranged from 35 to 94 percent in 1982 (Table 5-37). In general, American firms have used the R.O.C. as a sourcing site (Table 5-38), while Japanese firms have invested in Taiwan mainly as an export base for third country markets. In the process, of course, all three economies have been linked closely together, and trade flows changed accordingly.

All the countries involved naturally benefit from this pattern. For example, American electronics investment in Taiwan started around 1964. By moving production to Taiwan, the parent American companies were able to combine their mature technology with the high-quality, low-cost Taiwanese labor to produce more cost-competitive products. They were then able to export these products back to the United States market, thereby partially offsetting the threat posed by increasing Japanese competition to their market shares. By 1974, Taiwan was the leading exporter of television sets to the United States, with such American giants as GE, RCA, Zenith,

Table 5-37
EXPORT RATIO OF U.S. DIRECT INVESTMENT IN TAIWAN, 1978/80/82
(Percentages)

Industry	1978	1980	1982
Electronic & Electric Appliances	92.8	87.4	94.0
Chemicals	22.0	31.8	35.5
Basic Metals & Metal Products	44.6	42.3	43.9
Machinery Equipment & Instruments	25.3	33.2	73.3

Source: Rong-i Wu, "U.S. Direct Investment in Taiwan: An Economic Appraisal," *Economic Review (Taipei)*, No. 229 (Jan.-Feb. 1986), p. 5.

and Admiral leading the way.[38] Despite the clear mutual benefits derived from American investment in the R.O.C., the very success of American exporters has contributed to the rising tensions between the two countries. Indeed, the use of Taiwan as an export base by foreign firms has created a strong pro-export bias in the industrial structure that is designed specifically to service foreign, especially U.S., market needs. There is little that can be done in the next few years that will significantly alter this export bias, although the direction of exports can be modified slowly.

3. Foreign Investment Outflows

To absorb some of Taiwan's huge current account surplus, offset the resulting inflationary pressure, and diffuse some of the political tensions generated by Taiwan's export successes, the R.O.C. government has tentatively begun to encourage private investment abroad. The government's stated goals in encouraging these investments are to obtain raw materials, secure markets, acquire new technology, and promote economic cooperation. During the 1959-1984 period, government-approved overseas investment amounted to only US $174 million. The bulk of Taiwan's overseas direct investments have been in the United States (47 percent) and Southeast Asia (33 percent). Taiwan's investments in the United States are heavily concentrated in electronic and electric appliances, chemicals, and trade, which together accounted for 84 percent of the total (Table 5-39).[39]

Taiwan's investments in the United States have increased rapidly as the bilateral trade surplus has ballooned. Indeed, they have contributed to part of the export increase, since some of these investments have been to provide marketing, distribution, and final processing for Taiwan-made goods. In the first 11 months of 1985, government-approved Taiwanese investment in the United States rose to US $32 million — almost 40 percent of the total for the previous 25 years.[40] The pace has increased in 1986, reaching last year's 11 month total in just five months.[41]

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[38] Chu-yuan Cheng, op. cit., p. 93. Today, of course, the cutting-edge of Taiwanese industry has moved way beyond television production.

[39] Ibid., p. 94.

[40] Ibid.

[41] Investment Commission, Ministry of Economic Affairs, Republic of China, *Overseas Chinese and Foreign Investment, Technical Cooperation and Outward Investment* (May 1986).

Table 5-38
DESTINATION OF TAIWANESE EXPORTS FOR U.S. FIRMS, 1980-1981
(Millions of US Dollars)

Country	1980		1981	
	Amount	Share (Percentages)	Amount	Share (Percentages)
	Electronics and Electrical Equipment			
U.S.A.	372.1	76.9	494.6	69.0
Japan	21.1	4.4	46.1	6.4
Europe	23.9	4.9	43.3	6.0
Other	66.8	13.8	132.9	18.5
Total	483.9	100.0	717.0	100.0
	Chemicals			
U.S.A.	20.3	14.9	18.1	11.7
Japan	6.3	4.6	5.9	3.8
Europe	3.8	2.8	5.3	3.5
Other	105.4	77.7	125.1	81.0
Total	135.7	100.0	154.5	100.0
	Basic Metals & Metal Products			
U.S.A.	12.2	84.8	11.7	87.5
Japan	0.9	6.5	0.8	6.1
Europe	0.5	3.3	0.3	2.3
Other	0.8	5.5	0.6	4.2
Total	14.4	100.0	13.4	100.0
	Machinery Equipment & Instrument			
U.S.A.	7.0	14.2	67.0	40.7
Japan	0.8	1.7	0.5	0.3
Europe	3.8	7.7	49.3	29.9
Other	37.5	76.4	47.8	29.0
Total	49.1	100.0	164.6	100.0
	Total of All Industry			
U.S.A.	522.0	50.0	732.9	54.4
Japan	63.7	6.1	55.7	4.1
Europe	152.0	14.6	151.5	11.2
Other	366.5	35.1	407.6	30.2
Total	1,044.2	100.0	1,347.7	100.0

Source: Rong-i Wu, "U.S. Direct Investment in Taiwan: An Economic Appraisal," *Economic Review (Taipei)*, No. 299 (Jan.-Feb. 1986), p. 5.

Table 5-39
TAIWAN'S INVESTMENT IN USA, BY INDUSTRY, 1959-1984
(Thousands of US Dollars)

Industry	Cases	Amount	Percentage
Food & Beverage Processing	1	240	0.3
Pulp & Paper Products	1	500	0.6
Plastic & Rubber Products	2	6,000	7.4
Chemicals	1	24,000	29.4
Non-Metallic Minerals	1	461	0.6
Basic Metals & Metal Products	2	740	0.9
Machinery Equipment & Instruments	14	33,958	41.7
Trade	13	10,350	12.7
Services	5	4,430	5.4
Others	3	570	0.7

Source: Chu-yuan Cheng, "United Nations-Taiwan Economic Relations: Trade and Investment," *Columbia Journal of World Business* (Spring 1986), p. 94.

Despite these rapid increases in officially-approved overseas investments, they remain tiny compared with the foreign exchange surplus, and it is generally believed that considerable pent-up demand exists for further investments abroad. Concerned over the possibility of capital flight, the government has maintained tight foreign exchange restrictions. For example, until recently, it was illegal for R.O.C. nationals to invest in portfolio instruments overseas. Today, three financial institutions — the Central Trust of China, the International Commercial Bank of China (ICBC), and the Bank of Taiwan (BT) — have permission to operate "Trust Funds for Overseas Bond Investments." These new bond funds (or "Foreign Exchange Depository Receipts") do not offer the Taiwanese real investment freedom. Under the new system, the concerned institutions manage the funds for the depositors, taking in NT dollar deposits, converting them into foreign currency, and investing them in U.S. Treasury bills and other fixed interest rate securities. To date, US $100 million has been invested in this manner — a mere drop in the vast sea of Taiwan's foreign exchange surplus.[42] The funds, furthermore, are held by the Taiwanese financial community. One Taiwanese banker observed: "It means that the public faces exchange risks without even having use of the foreign-currency funds."[43]

Many Taiwanese businessmen are unwilling to surrender control over their foreign currency earnings. Although exporters are required to deposit their earnings with authorized banks in Taiwan in return for NT dollars, not all of them do. Reportedly, the practice of adjusting invoices to under-declare foreign currency earnings is common.[44] Most of these under-declared funds end up in the United States. Private investments without government approval in U.S. real estate, restaurants, banks, hotels, and motels are estimated at several hundreds of millions of US dollars during the 1981-85 period — although the exact amount is, of course, unknown.[45]

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[42] Anthony Rowley, op. cit., p. 85.

[43] Ibid.

[44] Ibid.

The trend points clearly towards growing investments in the United States, in the form of both direct and financial investments. This trend is enhanced by the Japanese success in using such investments to ease to some degree the political tensions caused by their bilateral trade surplus with the United States. Many critics argue that the government of Taiwan has responded much too slowly to free up the barriers to such investments. Reportedly, new measures to promote overseas investment — including tax credits and the removal of other restrictions — are currently being considered by the government.[46] In addition, the government has announced a goal of abolishing its foreign exchange controls entirely within five years.[47] Yet the current slow pace of liberalization makes such radical change seem unlikely. The deeply ingrained financial conservatism of the government — especially the Ministry of Finance — may have become counterproductive.[48] The banking system is awash with money. These assets need to be put into productive use, by investing them in the domestic economy and abroad, in order to avoid inflationary consequences. At the same time, such investments could help address some of the current political tensions that have resulted from Taiwan's strong trade performance.

E. Trade and Trade-Related Domestic Policies

As should be clear from the preceding analysis, Taiwan's bilateral trade surplus with the United States is due to a complex set of macroeconomic and structural factors. The common view that the best way to reduce the R.O.C. trade surplus with the United States is for the Taiwanese to buy more American-made products is an appealing argument, but it has limited feasibility.

American trade officials have stressed the need for further tariff reductions. The R.O.C. government could clearly improve its political bargaining posture if more progress were made on this front. Taiwan's nominal tariff rates average 26.5 percent, while tariff revenues actually collected averaged 7.9 percent of total import value in 1985. These rates are considerably higher than the U.S. 3.6 percent average, Canadian 4.3 percent, and Japanese 2.6 percent.[49] Furthermore, Taiwan's trade policies have failed to change to keep pace with the nation's economic development. Many of the high tariffs currently in place are pointless, given the competitiveness of Taiwan's industries. Many manufactured products for which Taiwan is today a major exporter (including hats, bicycles, textile products, and sports equipment) continue to be protected by high tariffs. The R.O.C. needs to bring its policies in line with current realities. Yu Teh-pei, an economist at Soochow University, has argued that Taiwan, with its relatively high tariff duties, has long been considered a protectionist nation, despite the fact that the duties are often either meaningless or fail to protect the industries they are designed to help. Moreover, he argues that, since high duties do not even ensure greater tax revenues, a moderate tariff reduction might benefit the government, local manufacturers, and the general public alike.[50] It would certainly reduce American pressures, by leaving the U.S. with fewer valid complaints to raise. In this regard, Taiwan might look to the example of Hong Kong, which also runs a large surplus with the United States, but is immune to American pressures for market opening, since its status as a free port already satisfies such demands.

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[45] Chu-yuan Cheng, op. cit., p. 94.

[46] Ibid.

[47] Anthony Rowley, op. cit., p. 85.

[48] An example is provided by the government's decision to liberalize gold trading to help absorb surplus foreign exchange in November 1986. Although the government eased its monopoly on gold, allowing traders to import and sell gold freely, conservative officials also imposed a 5 percent sales tax to discourage speculation. As a result, they also discouraged sales. According to Finance Minister Robert Chien, some officials believe that if the government does not benefit from legalized gold trading, there's no point in legalizing it. Others think that some government officials have their priorities mixed up. See: Julia Leung, op. cit.

[49] Chu-yuan Cheng, op. cit., p. 91.

Since 1980, Taiwan has moved to reduce its tariff rates. In the 1979 bilateral tariff negotiations, the R.O.C. government promised tariff reductions on 339 items, of which 299 were implemented in 1980. Further tariff concessions were granted on 31 more items in 1981; more tariff reductions, involving 305 items exported to the United States, were granted in 1984 and 1985 (see Table 5-40).[51] Special concessions have also been made to the United States to reduce the trade gap. For example, the sources of certain import items (e.g., sedans, radios, and TV sets) are limited to North America, while others are restricted to North America and Western Europe. In more recent talks, Taipei agreed to tariff reductions in 58 of the 71 product categories in which the U.S. government had demanded reductions in August 1986. The rates for 16 of these are to be cut by up to half. In other recent actions, the Ministry of Finance announced that it would lower the current top rate of duty from 67.5 percent to 57.5

Table 5-40
TARIFF REDUCTIONS ON U.S. EXPORTS TO TAIWAN, 1974-1985

Year	Items Made Duty Free	Tariff Reductions	Total
1974	2	202	204
1975	0	59	59
1976	11	48	59
1977	4	135	139
1978	16	983	999
1979	21	432	453
1980	21	1.606	1,627
1981	0	0	0
1982	5	106	111
1983	0	0	0
1984	2	281	283
1985	35	1,058	1,093
Totals	117	4.910	5,027

Source: Chu-yuan Cheng, "United States-Taiwan Economic Relations: Trade and Investment," *Columbia Journal of World Business* (Spring 1986), p. 91.

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[50] Carl Chen, op. cit.

[51] Chu-yuan Cheng, op. cit., p. 91.

percent as of January 1, 1987. The Finance Ministry indicated that it would lower tariffs on a wide range of other products and drop import-license requirements for over 3,000 foreign-made products. The R.O.C. government has also announced its intention to implement a general reduction in tariffs.[52] The pace of liberalization leaves much to be desired, however. The speed of Taiwan's trade liberalization lags behind even that of South Korea. The South Koreans are planning to reduce their nominal tariff rates from 20 percent to 17 percent by 1988. In contrast, Taiwan plans to reduce its rate to 20 percent by 1990.[53]

South Korea has also developed a tariff-liberalization schedule, which has established a clear timetable for tariff reductions. In this fashion, they have not only informed U.S. officials of the details of their plans, but also provided domestic businesses with the information they need to make future business decisions. The schedule has been well received by U.S. trade officials. Taiwan could easily emulate the South Koreans on this point, but has not done so. The conservative Taiwanese bureaucrats seem adamantly opposed to such an approach. Reportedly, Finance Minister Robert Chien, when privately pressed for a timetable on tariff reductions, "slammed a table and said, 'No timetable — simply no'."[54]

The conservative Taiwanese bureaucracy has also shown considerable reluctance even to implement agreed reductions. An example is the highly politically charged issue of U.S. alcohol and tobacco exports. On October 23, 1985, the R.O.C. government agreed to open its markets to imports of American beer, wine, and cigarettes by October 1986. This agreement successfully staved off planned American retaliatory trade actions at that time. However, differences over the pricing and advertising of U.S. liquor and cigarettes prevented the implementation of the agreement until recently. Although the two countries finally agreed on a plan to open up the market in December 1986, the confrontational tactics taken by both sides on this issue are not healthy for the maintenance of the relationship.

The dispute assumed enormous symbolic importance for both sides, far exceeding its actual potential for reducing the trade gap.[55] The U.S. side considered the case to be a classic example of how Taiwan's bureaucratic interests frustrate and block promises made by the R.O.C.'s own trade negotiators. American officials have grown increasingly impatient with the Taiwanese practice of making promises in negotiations that they either cannot or will not implement, in order to offset American pressures for change. On the other side, the U.S. pressure on this question aroused considerable hostility in Taiwan. The local press compared American demands that Taiwan accept U.S. cigarette exports to the British policy of exporting opium to China in the nineteenth century [a policy which led to the Opium War (1840-42)], while legislators in Taiwan's Legislative Yuan called upon Taiwan's negotiators to refuse to sign any "new unequal treaties." In addition, local consumer and public health groups said that, once imports began, they would launch a campaign against foreign cigarettes.[56]

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[52] Carl Goldstein, "Unequal Treaties," *Far Eastern Economic Review* (September 11, 1986), pp. 118-119.

[53] Osman Teng, "The ROC Must Provide Greater Market Access for U.S. Goods," *The Economic News (Taipei)*, No. 599 (June 30-July 6, 1986), p. 5.

[54] Julia Leung, op. cit.

[55] U.S. companies have claimed that the R.O.C. represents a potential market of US $2 billion for cigarettes, beer, and wine. However, this is doubtful. The Bureau sold only NT $31.3 billion (US $84.6 million) of tobacco products and NT $32.7 billion of alcholic beverages in 1985. For this estimate to be valid, U.S. products would not only have to completely replace the cheaper domestic products, but also greatly expand the size of the market itself. Carl Goldstein, "Unequal Treaties," op. cit., p. 119.

[56] Ibid.

Reportedly, the level of hostility has, if anything, increased since the resolution of the issue. Determined to make the wine and tobacco negotiation an example of the new American resolve, and "teach" the Taiwanese a "lesson", U.S. trade officials "played hardball." After the delay, they did not offer Taiwan as favorable a proposal as they originally had, forcing the Taiwanese to accept the new deal through threats of harsher retaliation. The events left R.O.C. government officials very bitter. Their response has been to attempt to get even by creating all kinds of bureaucratic barriers to selling American-made cigarettes in Taiwan and by encouraging European companies to enter the market as well, to reduce American sales. As a result, some experts believe that Japan and the European countries will end up benefiting more from American efforts to open the cigarette market than will U.S. firms.

Such a confrontational approach is a serious error on Taipei's part. Indeed, Taiwan should have tried to reduce the confrontational character of this dispute. The U.S. trade deficit is now a hot political issue. Any target that can be blamed for that deficit will be blamed — regardless of its actual relevance to the problem. U.S. exports of tobacco and alcohol products will not significantly reduce the bilateral trade deficit, let alone the overall U.S. trade deficit. But Taiwan's import policies in this area provided a highly visible target in an export sector that has a strong political constituency that is well represented in the U.S. Congress. The American decision to play hardball on this issue was accordingly viewed as not only a popular gesture domestically, but also an effective way to let the Taiwanese — as well as other important U.S. trading partners like Japan, West Germany, and South Korea — know that the United States means business. It is an unfortunate political reality that retaliation against Taiwan costs the United States little, but Taiwan a great deal. Taiwan's dependence on the U.S. market leaves it with limited opportunities to retaliate if it considers American actions to be unfair.

In order for the R.O.C. to reduce U.S. trade pressures, more creative and responsive policies are necessary. Instead of blocking liberalization in this area, the R.O.C. government should be implementing radical reforms to open up this market in a blare of favorable publicity and self-promotion. The actual economic impact of reform would probably be small: most U.S. products would still be more expensive than local products, and, in light of this fact, consumer tastes would not be likely to change rapidly. Import-liberalization would be particularly beneficial to Taiwan for products in which the United States has a clear comparative advantage relative to Taiwan's other import sources, such as Japan. Tobacco and alcohol imports are of this nature — they will have minimal domestic economic impact (except potentially on monopoly revenues) and are products in which the U.S. has competitive advantages. At the same time, import-liberalization on items in which the R.O.C. itself has a clear competitive advantage, but on which it still imposes high tariffs, would not lead to any significant increases in U.S. exports, but, if properly publicized, would help reverse the image that is widely held abroad of Taiwan as a protectionist economy. Thus, tariff reform, although not a panacea for Taiwan's bilateral trade problems with the United States, could lead to significant political gains.

A good example of this type of approach is the highly successful anticounterfeiting campaign conducted by the R.O.C. government. In response to increasing international concern in 1983, the government appointed a blue ribbon national commission to deal with the problem of commercial counterfeiting. The amended trademark law, passed on January 26, 1983, imposed increased criminal penalties; a revised copyright law which protects all intellectual properties, including computer software and video tapes, was also put into effect in July 1985. Taiwan and the U.S. also agreed in October 1985 to allow manufacturers of American pharmaceutical and chemical products (one of the fastest growing U.S. exports to the R.O.C.) to apply for patent rights in Taiwan for the next 15 to 20 years. As a result of these measures, in early 1986, when several Southeast Asian countries were accused by the U.S. government of counterfeiting, Taiwan was not mentioned. Furthermore, U.S. officials have praised Taiwan for its efforts in this area.[57]

Realistically, however, there is little Taiwan can do through trade policy that will increase its imports from the U.S. enough to cause significant reductions in its bilateral trade surplus with the United States. Such actions as tariff reform, "buy American" programs, inviting U.S. companies to participate in Taiwan's major infrastructure development projects, and opening up the R.O.C. services market to U.S. corporations, however, can improve Taiwan's political position by addressing American concerns; and, thereby, gain the government valuable time, while exchange rate changes, improved domestic growth, reduction of excess domestic savings, and other fundamental macroeconomic and structural changes work to reduce the surplus.

One of the most critical requirements for Taipei is to diversify its export markets. The government must reduce its dependence on the American market. However, as mentioned earlier, the small size of the average Taiwanese export firm weakens its ability to explore and open new markets. To offset this weakness, the government has attempted to foster the development of large trading companies (or Latras) since 1978. In that year, the Export- Import Administration and the Large Trading Firm Assistance Provision became effective. Under these measures, Latras qualify for tax advantages and financing privileges, provided they meet various qualifications.[58] The purpose of the Latras is two-fold: to attain large-scale, more efficient trading operations in order to increase export expansion and to encourage export-diversification away from Taiwan's traditional markets.[59] The government's efforts have met with mixed success. Although the Latras' average annual exports have grown more steadily than the average annual exports of large firms, and their share of the nation's exports increased from 0.4 percent in 1979 to 1.3 percent in 1984 (Tables 5-41 and 5-42), their performance must be considered disappointing.

There are many reasons for the failure of the Latras to capture a larger share of Taiwan's trade. Although each Latra is funded by a group of firms that form a business group, they have not enjoyed the full support of their investor-business groups. They have not, for example, handled a very large part of their group's exports. As a result, they have not been able to operate on the expected scale — reducing the economies to be gained through the Latras and, therefore, discouraging other exporters from using them.[60] The lack of support the Latras have received from

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[57] Chu-yuan Cheng, op. cit., pp. 91-92.

[58] These qualifications include: 1) net paid-in capital of no less than US $5 million; 2) previous year's annual exports of no less than US $20 million; this second qualification has been modified by a 1982 administrative order of the Executive Yuan which stipulates an accelerated schedule for exports as follows — US $20 million, US $30 million, US $50 million, and US $100 million per year for 1982, 1983, 1984, and 1985 respectively; 3) three or more foreign branches.

[59] Kuo Kung-Mo, "The Role of and the Issues Faced by the Large Trading Firms in the Republic of China," in *Industrial Policies of the Republic of Korea and the Republic of China*. Papers and Discussions from the Joint KDI/CHIER Conference, November 21-22, 1985 (Seoul, Korea: Korea Development Institute, 1985), p. 163.

[60] Ibid., p. 168.

Table 5-41
AVERAGE ANNUAL EXPORTS FOR A TYPICAL LATRA AND TYPICAL LARGE FIRM, 1979-1984
(Millions of US Dollars)

	Exports		Annual Changes (Percentages)	
	Latra[1]	Large Firm[2]	Latras	Large Firms
1979	$31.4	$45.7	—	—
1980	43.7	45.3	39.17%	−0.88%
1981	52.7	48.7	20.59	7.50
1982	60.0	46.9	13.85	−3.69
1983	64.8	46.1	3.00	−1.71
1984	65.3	50.7	0.77	9.98

Notes: 1) Latras with annual exports of US $20 million or more. 2) Firms with annual exports of US $20 million or more.

Sources: Kuo Kung-Mo, "The Role of the Issues Faced by the Large Trading Firms in the Republic of China," in *Industrial Policies of the Republic of Korea and the Republic of China*, Papers and Discussions from the Joint KDI/CHIER Conference, November 21-22, 1985 (Seoul, Korea: Korea Development Institute, 1985), p. 166.

their investor-business groups may be due to the motivations of member firms in joining Chinese business conglomerates. Most of the firms surveyed have indicated that they joined the business group mainly to gain the benefits of cooperation and specialization in finance, R&D, and production technology among member firms. Cooperative marketing efforts were not considered to be the major benefit sought.[61] In addition, Taiwanese manufacturers apparently do not consider exporting through the Latras to be attractive. A survey of 63 electrical goods manufacturers and 42 textile producers substantiates this point. The survey shows that most manufacturers in these two leading export industries believe that exporting through trading firms is less profitable than exporting directly by themselves. In other words, the gains to be achieved through economies of scale are inadequate to offset the share of profits that must be allocated to the trading firm. Inevitably, if exporters hold such a view, they will be discouraged from employing the Latras' services.[62]

The Latras have clearly not come close to fulfilling the government's hopes or performing anything like Japan's trading companies, the model on which the Latras are based. Of course, Japan's general trading companies appeared as a result of a normal process of economic expansion and concentration in the Japanese economy. They were not the product of government sponsorship. It may well be that large-scale

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[61] Ibid., p. 170.

[62] Ibid., p. 171.

Table 5-42
LATRAS' AND LARGE FIRMS' SHARE OF THE NATION'S EXPORTS, 1979-1984
(Millions of U.S. Dollars)

	Latras[1]		Large Firms[2]	
	Total	Share of the Nation's Exports (Percentages)	Total	Share of the Nation's Exports (Percentages)
1979	62.8	0.39%	2,422.6	15.04%
1980	131.0	0.66	3,218.4	16.25
1981	210.9	0.93	3,945.0	17.45
1982	240.1	1.08	3,608.8	16.25
1983	323.0	1.28	4,659.6	18.55
1984	391.8	1.29	6,132.4	20.13

Notes: 1) Latras with annual exports of US $20 million or more. 2) Firms with annual exports of US $20 million of more.

Sources: Kuo Kung-Mo, "The Role of the Issues Faced by the Large Trading Firms in the Republic of China," in *Industrial Policies of the Republic of Korea and the Republic of China*, Papers and Discussions from the Joint KDI/CHIER Conference, November 21-22, 1985 (Seoul, Korea: Korea Development Institute, 1985), p. 166.

Taiwanese firms developed through the normal process of economic expansion and concentration will ultimately have to be the answer to this problem.

Another approach to diversifying Taiwan's export markets that may be more workable in the short-term would be for the R.O.C. to work through the foreign investors located on the island. As discussed already, foreign direct investment in the R.O.C. has a heavy export-orientation. U.S. firms, in particular, are heavily export-oriented (see Tables 5-36 and 5-38). In 1982, the exports of American-owned firms accounted for 4.4 percent of Taiwan's total exports. The bulk of these exports have gone back to the United States. Overall, 54.4 percent of the exports of U.S. companies were sent back to the United States. Consequently, these companies have played a major role in creating Taiwan's bilateral trade surplus with the United States. This fact is often not understood in Washington, where it has become more popular to engage in demagoguery over the size of the trade deficit than to peer behind the numbers and examine its root causes. American companies, for their part, are reluctant to take a stand on the matter, lest they become the targets of labor interests concerned over the export of American jobs to the Far East.

Still, the potential exists for transforming these firms into an even more important asset. They have enormous resources and well-established marketing networks. Consequently, they can provide vital assistance to smaller Taiwanese firms seeking new markets for their products. There is much talk in Taiwan about the possibility of U.S.-R.O.C. joint-ventures that might help to ease the current tensions between the two countries. It is argued that the R.O.C. could provide American companies with an excellent location site, at the "commercial crossroads of Asia," for the opening up of new markets in the region — particularly Japan — to American and Taiwanese products. The idea would be for American manufacturers to provide design and production of some components in the United States and license the manufacture of others to Taiwan. Such an approach would reduce ocean freight costs, provide faster delivery, help improve after sales service, lead to product designs more suitable to the market, and lower manufacturing costs, making the final product more competitive. Taiwan's technical and manufacturing capabilities combined with its favorable investment climate and the close ties already formed between the Taiwanese and the American business communities make it an ideal location for such a project. If successful, such a project would not only open up new markets for both the R.O.C. and the U.S., but also increase R.O.C. imports of American products. In addition, Taiwanese officials argue that such an approach would also help U.S. firms compete more effectively with Japanese products in Japanese and world markets. It would thus provide a significant boost to Taiwanese efforts to deal with its bilateral surplus with the United States, while improving the climate of the bilateral relationship at the same time.

F. Causes of the Massive Trade Surplus with the United States

As indicated earlier, Taiwan posted a US $10 billion surplus on its trade with the United States in 1985. This was the United States' third largest bilateral trade deficit in 1985 — behind the deficits with Japan and Canada, but ahead of those with West Germany and Hong Kong. In 1986, as indicated earlier, the island registered a US $13.5 billion surplus on its trade with the United States. Such numbers guarantee increasing protectionist sentiment in the United States.

Why does Taiwan run such a large surplus with the United States? This question is really two interrelated, but distinct, questions: why does Taiwan export so much; and why doesn't it import more? Answers to both of these questions must take into account a wide range of economic adjustments and trends that concurrently determine interest rates, exchange rates, investment, and economic growth, as well as exports and imports. It is possible to identify the primary determinants of trade flows and the available policy levers to help correct the imbalance. Such an assessment must distinguish between long-established factors and more recent developments, as well as those factors that are more or less amenable to government action.

1. Long-Term or "Structural" Factors

Accordingly, we first estimate the "structural" surplus — that which is due to the slowly changing characteristics of the bilateral trading relationship. To cross-check the results, this is done in two separate ways: first, by projecting mutual trade in 1985, based on the GNP-import relationships established in the 1970s; secondly, by projecting Taiwan's 1985 surplus with the United States, based on the multilateral structure of trade in the late 1970s, under the assumption of a zero overall trade balance, adjusted by long-term compositional factors that would have created a trade surplus.

Among the long-term forces at work is the much higher growth of output and productivity in Taiwan than in the United States — trends that work against one another in their effects on the surplus. More rapid economic growth in Taiwan than in the United States draws more imports into Taiwan and reduces the surplus, while more rapid productivity growth (with more or less fixed exchange rates and good inflation control) increases Taiwan's export competitiveness and increases the surplus. Moreover, there is a big difference between the United States and Taiwan in the relationship between economic growth and imports from each other. For the United States, the long-term relationship between U.S. GNP growth and the growth of imports from Taiwan is over six (a one percent increase in real U.S. GNP being associated with an increase of real imports from Taiwan of over 6 percent), while that between Taiwanese growth and imports from the United States is only between one and two.

Both the relative growth rates and the import relationships have changed in recent years. Taiwan's average rate of economic growth in the 1980s has declined compared to the 1970s, while that of the United States has remained roughly the same. By itself, this narrowed growth gap would have widened Taiwan's surplus with the United States; however, the impact of changes in the relationship between economic growth and imports in both Taiwan and the U.S. must be added to the impact of the narrowed growth differential on the surplus. Although the growth of Taiwan's exports to the United States slowed — from a real 25.6 percent annual rate between 1960 and 1980 to one of 15.8 percent between 1980 and 1985 — the decline was less than proportional to the decline in the growth of U.S. GNP. The simple elasticity between the real growth of U.S. GNP and real Taiwanese exports to the United States actually increased from 6.1 for 1970-80 to 6.9 for 1980-85. If this had not occurred, Taiwan's exports to the United States in 1985 would have been some US $1.7 billion smaller than its actual exports. This increased elasticity is almost certainly due to the exchange rate impact analyzed below.

The opposite trend occurred for real U.S. exports to Taiwan. Between 1960 and 1980, Taiwan's GNP elasticity of imports from the United States was 1.4; for the

1970s alone, it rose to 1.8, whereas the 1980-85 relationship was negative — a relationship that can only be explained by short-term factors. Using the "long-term" elasticity of the 1970s to estimate potential imports from the United States in 1985, together with actual Taiwan GNP growth rates, would raise imports some US $3.5 billion above actual levels (US $2.9 billion based on the 1960-80 relationship). The estimate of imports from the United States is based on the actual 1980-85 average annual GNP growth rate of 6.5 percent. Had Taiwan continued to grow at its 1970s pace (10.2 percent), it would have imported as much as US $1.9 (US $1.6 using the 1960-80 relationship) billion more from the United States. How much of this potential import estimate should be allocated to long-term versus short-term factors is not clear. Estimates of potential growth are highly uncertain and subject to great controversy. If we assume long-term economic growth near the bottom of the range established between the 1970s average and the 1980s average, the estimate allocates about one-half of the US $1.9 (US $1.6) billion difference in imports to long-term factors, the rest to short-term factors. Thus, taking into account the narrowing gap in relative growth rates, and the long-term growth-import relationships established during the 1970s, Taiwan's long-term surplus with the United States would have been US $3.0 to US $5.5 billion in 1985, up to one-half of the actual.

This estimate of the long-term surplus provides only an aggregate figure. It is also possible to identify several major structural components and estimate them independently by fairly simple techniques. The impact of the three structural elements on the bilateral balance identified above — the multilateral trade pattern, the long-term savings-investment balance, and the deficit on services account — can be estimated in rather straightforward ways. If, together, the estimates for these components add up to roughly the same general magnitude as the simple trade projections, we gain confidence in the above estimates and in the policy implications that flow from them.

Perhaps the most important contributing factors to Taiwan's long-term trade surplus with the United States are the relationships that underly the structure of multilateral trading patterns that have evolved over time. Such relationships change very slowly, except in periods of great stress, such as the restructuring caused by the first oil shock. For Taiwan, these patterns imply deficits with Japan and the Middle Eastern oil exporters, offset by surpluses with the United States, Western Europe, and most of the rest of the world. Even if Taiwan's overall trade balance was zero, these patterns would prevail — in the absence of major restructuring, which is unlikely for the next few years. Although no period can be considered typical for U.S.-Taiwan trade patterns, the late 1970s is perhaps the best period to use as a basis for comparison. This period reflects the major trade shifts caused by the first oil shock and the adjustments to that shock, and also more reasonable exchange rate relationships than more recent years.

If we assume that Taiwan's overall trade balance was zero in 1985, the multilateral pattern of trade established in the late 1970s would have produced a US $3.4 to US $4.0 billion trade surplus with the United States.[63] At least two major factors ensure, however, that a surplus rather than a zero balance is a more appropriate basis for calculation: Taiwan's savings-investment balance and its deficit on services account. As discussed above, the emergence of huge short-term imbalances between savings and investment (in opposite directions) in the two countries was a central element in the dramatic increase in the bilateral imbalance since 1980. The large gap that has emerged in recent years in Taiwan between gross domestic savings and gross domestic investment and the resulting current account surplus is likely to decline in the future. Capital exports of the magnitude reached in recent years eventually will result in economic growth rates below acceptable levels. GNP growth rates averaged 6.5 percent during 1981-85, compared to 10.2 percent for the decade of the 1970s. Politically "acceptable" growth rates probably lie between these two levels. Indeed, growth in 1986 and early 1987 is similar to that of the 1970s. Sustained growth in the 7 to 10 percent range would require supporting investment of some 20 to 30 percent of GNP (we assume 25), well above that of recent years.[64] Gross savings rates almost certainly can be reduced to under 30 percent of GNP, mainly by budgetary actions and altered incentives for private savings. Given Taiwan's conservative policy bias, savings will tend to exceed investment over the long-term, but not by anything like the extent of the current imbalance. Our best estimate is that excess savings, and thus the current account surplus, could be expected to decline to some 4-6 percent of GNP, compared to the recent 10 to 14 percent. Due to domestic macroeconomic trends, a current account surplus of this magnitude (some US $3.0 to $3.5 billion of the US $10 billion current account surplus for 1985) can be expected to continue for at least several years. Since Taiwan runs a deficit on its services account, all of this current account surplus would be on the merchandise trade account.

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[63] This estimation assumes that Taiwan achieved a zero trade balance in two alternative ways: 1) by reducing exports by one-third and expanding imports by two-thirds of the size of the surplus in 1985; and 2) by reducing exports by two-thirds and expanding imports by one-third the size of the 1985 surplus. The revised export and import totals were then allocated to trading partners according to their trade shares in 1977-79.

Also as discussed above, since Taiwan tends to run a services deficit, a zero current account balance would imply a trade surplus. The services deficit has averaged between US $1.0 and $2.0 billion in recent years. Together with the savings-investn. at balance, this implies an overall trade surplus of US $4.0 to $5.5 billion rather than the zero balance assumed above. If this surplus is allocated according to the same assumptions used to calculate the effects of a zero balance, Taiwan's bilateral surplus with the United States would rise to between US $4.8 and $5.5 billion — about US $1.0 to $1.1 billion of the increase being due to the long-term saving-investment balance factor and US $0.4 to $0.5 billion to the services deficit.

Together, these overall trade structure factors — the multilateral balance, savings and investment trends, and the services deficit — imply a surplus with the United States of US $4.8 to $6.3 billion, which is of the same approximate magnitude as the estimates made by projecting bilateral trade, based on relative economic growth rates and historical import relationships. Thus, something over one-half of Taiwan's 1985 surplus with the United States reflects long-term forces. Such forces react only slowly to basic evolutionary changes in economic relationships and tend to be insensitive to policy changes.

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[64] Ignoring years of big shock, the incremental capital-output ratio has risen from about 2 in the early 1970s to over 3 since the late 1970s. This latter value is assumed to hold for the next several years and is used to calculate the investment shares cited in the text that are required to support the GNP growth rates noted. If the capital-intensity of GDP continues to rise, the share would have to be somewhat larger. It should be noted that investment levels of recent years will not support sustained growth at the 6.5 percent rate actually achieved. Exports have provided a short-term offset to the investment collapse, but, without capacity growth, such growth cannot be maintained.

2. *Short-Term Factors*

The remainder of the 1985 surplus, however, reflects the impact of short- term economic forces, some of which tend to be more amenable to policy actions. A variety of short-term factors can be identified as having a significant influence on the trade balance. Those estimated here include the slowdown in Taiwan's rate of growth, the domestic investment collapse, the agricultural import price fall, and real exchange rate changes.

Since the economic growth differential between Taiwan and the United States narrowed in the first half of the 1980s, high growth in Taiwan did not offset its low import elasticity for U.S. goods (low compared with the U.S. import elasticity for Taiwanese goods), and the surplus rose. If Taiwan's economic growth had been as high as in the 1970s, and if the import-GNP growth relationships of the 1970s also had continued, the surplus would have been US $1.9 billion smaller, as noted above. Since long-term forces were working with cyclical factors to reduce Taiwan's growth, this estimate is high. A more conservative estimate would be about one-half of that (US $0.95 billion) due to cyclical factors.

The major source of the decline in the growth of Taiwan's GNP was a collapse of domestic investment. Because of the high import content of investment, and the large U.S. share in Taiwan's imports of investment goods, this effect can be estimated independently. Real investment spending declined three percent annually from 1980 to 1985. If the relationship between domestic investment and imports of capital goods from the United States that occurred during the 1960s and 1970s had held, imports of these goods from the United States would have fallen US $625 million between 1980 and 1985. Actual imports fell only about US $275 million. To be consistent with the previous methodology, for our accounting, we use the full drop in imports implied by the historical relationship. Capital goods imports induce a variety of other imports, components, spare parts, etc., that are a function of the investment decision. We then assume that these add at most 50 percent to the estimate. Thus, the investment decline in Taiwan can explain US $625 to $940 million of Taiwan's surplus with the United States in 1985.[65]

Another recent change has been the fall of agricultural prices relative to prices of manufactured goods. For Taiwan, the relative price of imports of agricultural products fell over 23 percent between 1980 and 1985. If the relative prices had remained constant, while prices of industrial products had followed their actual path, the value of agricultural imports from the United States in 1985 would have been some US $320 million higher than the actual value.

The major short-term factor affecting the bilateral trade balance is the behavior of exchange rates — in particular, the wide swings in the value of the U.S. dollar relative to the other major currencies since the early 1980s. In recent years, the New Taiwan Dollar has been maintained at what is probably an artificially low rate vis-a-vis the U.S. dollar. Since 1982, the NT dollar, which used to be tied to a narrow band around the U.S. dollar, has floated under close central bank guidance. Massive trade surpluses and the rapid accumulation of foreign exchange reserves have placed upward pressures on the value of the currency. Since the beginning of 1986, the NT dollar has risen some 11 percent against the US dollar — closing at NT$35.43:US$1.0 on

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[65] Domestic investment and imports of capital goods both increased substantially in 1986, especially in the latter half.

January 6, 1987.[66] Many economists and businessmen expect the central bank to be forced to allow the currency to strengthen even more, but the central bank is reluctant to allow the currency to appreciate quickly and has intervened extensively in the foreign exchange market to prop up the value of the US dollar against the NT dollar. The U.S. government has been pressuring Taipei to allow further revaluation of its currency as a way of reducing the trade gap.

The case for continued revaluation is strong. In real terms, the NT dollar became considerably more competitive against the US dollar in the 1980s, compared to the late 1970s, except for a sharp one year drop in 1980, due to oil price inflation effects (Figure 5-4).[67] In May 1986, the NT dollar/US dollar rate that would have maintained the 1975-79 average purchasing power relationship would have been 34.78, more than 10 percent above the actual 38.38 rate. In light of the rising trade and current account surpluses, the actual exchange rate seems clearly inappropriate, despite its more rapid appreciation in the latter part of 1986. Throughout the early 1980s, it kept Taiwanese goods cheap relative to U.S. products, but expensive relative to all other currencies against which the U.S. appreciated. Exchange rate management thus clearly contributed to the shift of exports to the U.S. market and tended to shift imports away from U.S. suppliers. Thus, a larger appreciation of the NT dollar would seem appropriate.

We know that U.S. imports tend to be quite price sensitive. Some estimates suggest that a one percent change in the price of imported goods relative to domestic goods induces around a two percent change in the volume of imports.[68] We will use the more "conservative" estimate — that real U.S. imports from Taiwan increase by one percent with each price decrease of only one percent (over about a two-year period). The average real exchange rate depreciated over 12 percent between 1975-79 and 1983-85. Not taking into account any shift effects among suppliers, this would have increased annual exports to the United States in 1983-85 by an annual average of about US $2.2 billion in nominal terms; the amount would be double this figure if the higher elasticity were used.

Taiwan's imports are also reputed to be quite price sensitive, although few estimates of either total or bilateral elasticities exist. As a "conservative" estimate, we will assume that a one percent change in relative prices changes Taiwan's imports from the United States by one percent in the opposite direction, not accounting for shifts among markets. Under this assumption, the real depreciation of the NT dollar between 1975-79 and 1983-85 reduced Taiwan's imports from the United States by some US $500 million annually; higher elasticities, of course, would increase the estimate, to perhaps US $1.0 billion.

Thus, without accounting for shift effects among markets, we estimate that the real depreciation of the NT dollar relative to the US dollar since the late 1970s contributed between US $2.7 and $5.2 billion to Taiwan's annual bilateral surplus with the United States in the mid-1980s.

Substantial trade impacts can also result from substitution among suppliers, due to the large exchange rate shifts between the US dollar (and linked currencies such as the

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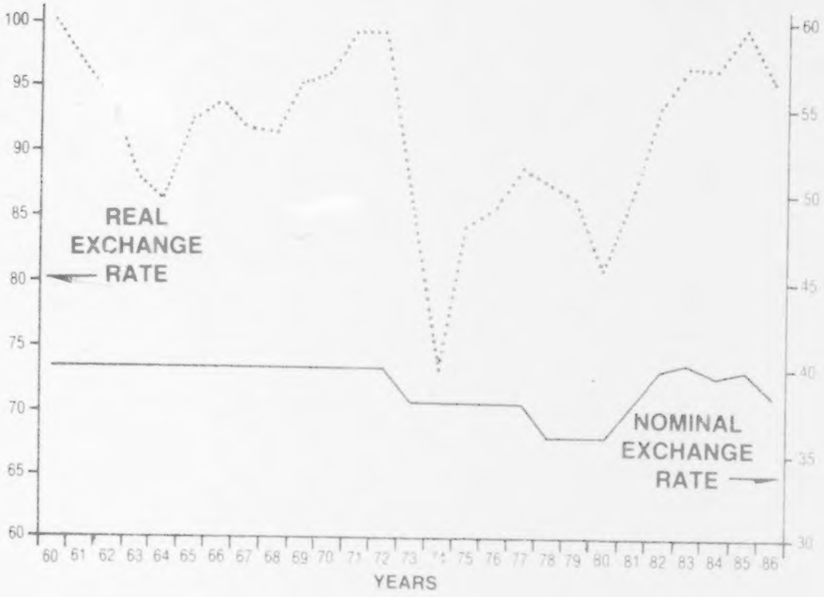
[66] Julia Leung, op. cit.

[67] Since Taiwan's economy has grown so quickly, there is no "correct" base period against which to compare exchange rates. The late 1970s is the best available base, since the first oil shock was passed through quickly and much of the price adjustment had taken place. Moreover, Taiwan had returned to a surplus on its trade account.

[68] Estimates vary considerably, and, for a variety of structural reasons, bilateral elasticities differ from those for total trade.

Figure 5-4
TAIWAN'S REAL EXCHANGE RATE
(NT$: US$, 1960 = 100)



Note:Data are for December each year except 1986, which is for May. Real exchange rates are computed from nominal rates by adjusting by relative wholesale prices and converting to an index.
Sources:Council for Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985*; The Central Bank of China, Republic of China, *Financial Statistics — Taiwan District*, The Republic of China (June 1986); Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Republic of China, *Statistical Yearbook of the Republic of China 1985*; and IMF, *International Financial Statistics Yearbook* (1985).

NT dollar) and other major trading currencies. During the early 1980s, the NT-dollar depreciated vis-a-vis the US dollar, but appreciated vis-a-vis other currencies, such as the Japanese yen and the West German mark. This tended, on the one hand, to shift Taiwanese imports away from the United States toward Japan and Western Europe, and, on the other hand, to shift U.S. imports away from Taiwan, toward other countries with depreciating currencies. On the assumption that a one percent change in relative prices brings about an opposite one percent change in imports (i.e. a one percent increase in the price of Taiwan's goods relative to other U.S. suppliers reduces U.S. imports from Taiwan by one percent, as the purchases are shifted to the other suppliers), we can make the following rule of thumb estimates:

- Prices of Taiwan's goods in the U.S. market rose 20 percent relative to those of industrial country exporters. This relative price change reduced U.S. imports from Taiwan by some US $3.7 billion a year during 1983-85.
- Prices of U.S. goods rose 35 percent relative to those of other industrial country exporters to Taiwan.[69] This reduced Taiwan's imports from the United States in 1983-85 by some US $1.5 billion a year.

On balance, these market shift effects reduced Taiwan's surplus with the United States by some US $2.2 billion in 1985, compared to a continuance of late 1970s real exchange rates. This is almost certainly an overstatement, since, although the other industrial countries are good substitute producers for Taiwan's imports from the United States, they are not as good a substitute for U.S. imports from Taiwan. Many of Taiwan's competitors (like South Korea) also managed their currencies to follow the US dollar during this period. Thus, maybe one-half of the total estimated above, or US $1.1 billion, would be a more conservative estimate of the market shift effects.

Together the various short-term factors estimated explain some US $2.4 to $7.4 billion of Taiwan's 1985 surplus with the United States. The range is fairly wide and includes some factors that are unlikely to occur together.[70] If we eliminate extreme combinations of factors, the range is narrowed to US $3.5 to $6.3 billion. Together, the long-term and the short-term factors more than explain the 1985 surplus.

These estimates are simplistic and do not take into account the various interaction effects that occur. Nevertheless, they strongly suggest that long-term factors account for about one-half of the surplus. These sources of the surplus probably cannot be quickly influenced by policy measures short of direct controls. Nearly one-half of the surplus, however, is probably amenable to such traditional policy instruments as exchange rate and monetary and fiscal policy management.

G. Conclusion: What Can Be Done?

In previous sections, we examined the reasons for the enormous bilateral trade surplus that the R.O.C. has run with the United States. As long as the U.S. macroeconomic balance remains out of control as a result of huge budget deficits, Taiwan will continue to run a large bilateral surplus with the United States. This bilateral surplus is enlarged by the opposite macroeconomic imbalance in Taiwan. But, even if these macroeconomic imbalances were corrected, the basic structural characteristics of the two economies dictate that Taiwan will continue to run a surplus with the United States for some years to come. Long-term factors, calculated in various ways, explained roughly one-half of the bilateral surplus in 1985 (Table 5-43). The remainder can be explained by more temporary variables, such as the collapse of investment and slower GNP growth in Taiwan, the undervalued real exchange rate of the NT dollar, and the stagnation of agricultural prices. It will take years to change the structural patterns; moreover, some of the macroeconomic imbalances are politically difficult to correct and result as much from trends in the United States as from trends in Taiwan's economy.

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[69] Adjusted prices are calculated on a trade-weighted basis by the IMF and reported in the *International Financial Statistics* (July 1986).

[70] Such as a high price elasticity of substitution among markets combined with a low price elasticity of demand.

Table 5-43
ESTIMATES OF THE LONG- AND SHORT-TERM INFLUENCES ON THE U.S.-TAIWAN TRADE BALANCE IN 1985
(Billions of US Dollars)

Actual Taiwan Surplus with the U.S.		$10.0
—Exports to the U.S.		14.8
—Imports from the U.S.		4.7
Long-Term Influences		
A. Taiwan Surplus with the U.S. Implied by Long Term GNP-Import Relationships[1]		3.0-5.5
—Taiwan Imports from the U.S.		7.6-9.1
—U.S. Imports from Taiwan		13.1
B. Alternative Approach Taiwan Total Structural Surplus with U.S.[2]		4.8-5.5
—Due to Multilateral Trade Patterns at Zero Overall Balance		3.4-4.0
—Due to Long-Term Excess Savings		1.0-1.1
—Due to Deficit on Services Account		0.4-0.5
Short-Term Influences		
Slower Taiwan GNP Growth		1.0-1.9
Direct Exchange Rate Effects to Increase the Surplus		2.7-5.4
—Increased Exports to the U.S.		2.2-4.4
—Decreased Imports from the U.S.		0.5-1.0
Market Shift Exchange Rate Effects to Reduce the Surplus		(−1.1)-(−2.2)
—Decreased Imports from the U.S.		1.5
—Decreased Exports to the U.S.		(−2.6)-(−3.7)
Surplus Implied by Taiwanese Investment Collapse		0.6-0.9
Surplus Implied by Agricultural Price Stagnation		0.3
Total Short Term Surplus[3]	A.	2.4-7.4
	B.	3.5-6.3
Total Estimated Surplus[4]		8.3-11.8

Notes: 1) See the text for the logic of the various estimates. 2) Components do not sum to the total due to rounding error. 3) Item I provides the widest range possible from the various short-term estimates. However, the extremes combine elements that probably could not occur together. Item II eliminates these combinations. 4) Total includes estimate B from both the long-term and short-term balance calculations.

Source: Hudson Institute.

It is also evident that the growth of the bilateral surplus cannot be attributed to Taiwanese trade policies. Although these policies have restricted imports and are among the causes of the long-term surplus, they have become less restrictive in recent years and consequently cannot be blamed for the increase in the bilateral surplus. Thus Taiwanese trade policy reforms, although necessary, will not lead to large reductions in Taiwan's bilateral surplus with the United States.

Nevertheless, the intractable nature of their bilateral surplus with the United States cannot be used as an excuse for inaction by Taiwanese officials. There are concrete steps that Taiwanese authorities can take that would reduce the size of the surplus, strengthen Taiwan's economy, and improve the atmosphere of the U.S.-Taiwan relationship. These actions include both long-term policy initiatives that may ultimately redefine the structural relationships and short-term measures that can lead to small reductions in the surplus and/or generate a positive political response in the United States. Some of these various actions are discussed below.

1. Trade Policy Issues

The desire to find an easy package solution to the trade imbalance has led many to propose the formation of a "Free Trade Area" (FTA) between the R.O.C. and the United States. Through such a Free Trade Area, Taipei would be able to lower its tariffs and open its markets, but only to the United States on a bilateral basis. The basis for this approach is Taipei's belief that any unilateral reduction in its tariffs will benefit Japan rather than the United States. Moreover, under the GATT rules, the main legal means of reducing tariffs on a bilateral basis requires some type of free trade arrangement. Some Taiwanese claim that the FTA is a legal mechanism that would allow Taipei to reduce its tariffs and other market barriers for the United States alone, while the United States for its part would not necessarily need to open its markets further. In general, however, most Taiwanese consider an FTA to be a means of reducing American barriers, as well as their own.[71]

An FTA with Taiwan would be politically unacceptable in the United States. While the U.S. government would certainly like to see Taipei's markets opened up, it could not further open the U.S. market to Taiwanese products. In fact, any kind of "free trade" deal with Taiwan — even if it did not entail further reductions in U.S. barriers to Taiwan's products — would be an inviting target for the administration's political opponents. The economy, especially the trade balance, is going to be a key issue for the Democrats in the next presidential election in 1988. According to a 1985 Gallup poll, the American public already sees Taiwan as a major threat to American jobs.[72] A free trade agreement with the country currently running the third largest bilateral trade surplus with the United States could invite political disaster for the Republicans.

The fact that the United States concluded such an agreement with Israel does not constitute a relevant precedent. First, it was Israel that was suffering from a deficit with the United States, not the other way around. Second, the United States and Israel have strong political and strategic ties, while Taiwan currently lacks both. Taiwan's main ties to the United States today are economic, and the U.S. government does not have a strong incentive to subordinate its economic interests in order to strengthen Taipei politically. Furthermore, even in Israel's case, the agreement was extremely difficult to reach, and there are already problems with the accord. The fact that the ongoing free trade talks with Canada — a much closer U.S. ally than Taiwan — are highly unlikely to result in an FTA agreement indicates the limited hope available for any such agreement with Taiwan, or any other Asian country, in the foreseeable future. As David W. Hess, Chief of the American Institute in Taiwan's (AIT's) information unit stated: "Rather than continue to spend our time publicly debating an issue which is unlikely to advance at this time, AIT feels strongly that it would be more productive to concentrate on the real, concrete issues of the day: market access and trade liberalization."[73]

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[71] Taiwan also is pressing for an FTA because they are afraid that one of their competitors — South Korea or the ASEAN countries — might obtain one first and place them at a competitive disadvantage in the U.S. market. Such an agreement is unlikely for the same reasons that it is unlikely that Taiwan will be able to obtain such an agreement.

[72] Bruce Stokes, "Rising Trade Deficit, High-Tech Growth Are Threats to U.S.-Taiwan Relations," *National Journal* (November 30, 1985), p. 2696.

Tariff-liberalization and other trade-related actions do not need to await a free trade agreement. Taiwan's efforts should continue to focus on reducing its import barriers in areas in which the U.S. enjoys a large competitive advantage, as well as in areas in which Taipei has a competitive advantage. The first approach will serve to increase U.S. exports to Taiwan, while limiting increased imports from Japan. The second approach — although it would not increase imports appreciably — could serve as an important political gesture. Some progress has already been made in both of these areas, but further steps can still be taken. In addition, the Taiwan government should formulate a timetable for tariff liberalization. South Korea has already done so and its efforts have been well received within the United States. Taiwan could generate considerable political goodwill by following the Koreans' example. It would also provide Taiwan's businessmen with a basis upon which to make future investment decisions.

2. *Liberalization in Services Areas*

Another area in which import-liberalization could both improve the Taiwanese economy and reduce American animosity is the services sector. Many Taiwanese economists have pointed out that opening the services sector wider to foreign investment would not only be a positive response to American concerns, but would also help raise the quality of services, by bringing in increased competition and more professional methods. The Taipei government has already taken some steps in this direction. The revised Statute for Encouragement of Investment by Foreign Nationals, approved in May 1986, opens new sectors to foreign participation and eases foreign exchange regulations. A number of service industries, considered to involve areas of expertise in which Taiwan needs help, have been added to the government's list of "strategic industries." As a result, these industries offer the same foreign investment incentives as other strategic areas. The newly added service industries include: advertising, insurance, accounting, the supply of business information, chain stores, management consulting, credit and security protection, other financial services, cultural services, fast foods, merchandise packaging and design, parking lot services, production equipment leasing, shopping malls, supermarkets and retail stores, and wholesale marketing. The potential Taiwanese market for American services is large. Prior to the revision of the statute, such well-known American firms as McDonald's, Wendy's, Swensen's, Carvel Ice Cream, Kentucky Fried Chicken, and Dunkin Donuts had already opened shop on the island. Since the statute was passed, they have kept coming. The liberalization of the services sector by Taipei is thus an excellent example of the kind of steps the government should be taking to deal with the trade tensions with the United States. It not only liberalizes an area in which the U.S. has a comparative advantage and addresses American concerns, it also benefits the domestic economy.[74]

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[73] "ROC-US Free Trade Area Accord Takes Time: AIT," *China Post* (July 10, 1986).

3. Increased Investment in Infrastructure

Increased infrastructure investment is another area that can benefit both the trade balance and the domestic economy. There has been considerable debate about and resistance to increasing government spending in Taiwan. The conservative attitude of some of the authorities has been to view such outlays as spending rather than investments in Taiwan's future — investments that are, in fact, necessary to strengthen the country's economic base as Taiwan prepares for its transition to a mature industrial society. Recently, the authorities have authorized some US $20 billion in investment in 14 major projects, to be completed by June 1990. These projects include rapid transit systems for both Taipei and Kaohsiung, telecommunication improvements, the expansion of port facilities, railway improvements, highways, environmental protection projects, hospital expansion projects, and continued upgrading of medical technology. In many of these areas, U.S. firms produce highly competitive products. In areas of medical technology, for example, U.S. firms often dominate the world equipment market. Overall, demand for imported medical products is projected to grow at a 15 percent annual rate over the next five years. The United States is expected to garner 40 percent of this growing market by 1990.[75]

Additional public investment is necessary. The government began to increase public investment in 1986, but more can still be done. Such projects benefit the economy and the trade balance, not only directly but also indirectly, by stimulating domestic consumption as well as private investment demand, which has been slack in recent years. Indeed, the analysis presented above suggests that the decline in real investment spending was a primary factor in the stagnation of U.S. exports to Taiwan since 1980. Since investment has picked up in the past year, Taiwan's imports have increased significantly.[76] Further increases in domestic investment would stimulate U.S. export prospects for all investment goods, but especially high-technology products, such as business information and communication systems, highway construction equipment, automatic electronic production equipment, controlling and testing equipment, sophisticated electronic components, advanced medical equipment, industrial process control instruments, and pollution control equipment.[77]

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[74] Eunice Chen, "Continued Growth Expected; American Investment Hits Record Levels," *The Economic News (Taipei)*, No. 599 (June 30-July 6, 1986), p. 6.

[75] "Taiwan Economic Trends and Their Implications for U.S.," *The Economic News (Taipei)*, No. 599 (June 30-July 6, 1986), p. 9.

[76] Overall, imports increased 19 percent in the first eleven months of 1986; much of this increase was due to the rise in demand for investment goods. In US dollar terms, imports of capital goods during the period from July-November 1986 rose 53 percent over the same period in 1985. Carl Goldstein, "Their Own Worst Enemy," op. cit.

The Taiwan government could easily enhance the positive affects of increased public spending on the bilateral trade balance with the United States by following "Buy American" strategies when implementing government projects. The government has given U.S. firms preferences in the past that are now abandoned. Since U.S. products in many of these areas are highly competitive anyway, such a policy should not raise costs excessively. Although it would be a bad long-term policy, such a program could yield many short-term benefits. In addition, government efforts to inform Taiwan's business community about the cost and quality-competitiveness of American-made equipment and technology might yield some gains. AIT already has some programs in this area, but government sponsorship would help.

4. Exchange Rate Appreciation

Many steps can thus be taken by Taipei to improve the import side of the bilateral trade picture. Another, more radical, step that could be taken would be to allow even faster appreciation of the New Taiwan dollar against the US dollar. The real depreciation of the NT dollar relative to the US dollar after the late 1970s was not warranted and contributed to both the bilateral trade imbalance and the growing export concentration on the U.S. market. Further appreciation of the NT dollar would not eliminate the surplus, but, with a lag of some one to two years, it could significantly reduce it. Moreover, it could help ease political tensions rather markedly. This could be achieved by implementing a more flexible policy of managed floating, perhaps against a basket of other currencies. More flexible exchange rate management should also promote export-diversification in the long-run. The key problem, of course, is how to manage the transition to more appropriate exchange rates, without causing too much domestic dislocation or suffering and minimizing the already huge foreign exchange losses suffered by the Central Bank and private financial institutions.

5. Promoting Export-Diversification

Export-diversification is, of course, the other side of the bilateral trade picture. As indicated earlier, export-diversification, in the long-run, would sharply improve the fundamental problems that exist between Taipei and Washington, and reduce Taiwan's vulnerability to American policy shifts. Of course, the United States would remain without a doubt Taiwan's largest market. It is worth noting that a free trade arrangement would encourage a further concentration on the U.S. market by Taiwan, thus expanding Taiwan's vulnerability to economic and political changes within the United States. Steps that would help to diversify Taiwan's exports would include an appreciation of the New Taiwan dollar against the US dollar, the establishment of a basket of currencies for exchange rate management, improvements in support services (both public and private) to help firms market overseas, and efforts to expand the use of the R.O.C. as an export base by foreign investors interested in markets other than the United States.

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[77] This last product area is clearly one with great potential for growth. The people of Taiwan have become increasingly concerned about the environmental impacts of industrial operations in recent years. The controversy surrounding the opening of a DuPont Chemical plant to produce titanium dioxide in the town of Lukang in central Taiwan is a clear indication of this new concern. At the present time, most of Taiwan's state-run and private industrial enterprises are not equipped with high-quality effluent treatment systems and other pollution controls, if they are equipped at all. U.S. firms could gain a significant share of this growing market.

In terms of marketing, the failure of the Latra approach should not be taken as a sign that the government can do nothing. Instead, it should be taken as a sign of the kind of approach that is needed. Firms prefer to retain the ability to market their own products. The government should, therefore, seek to provide the kind of assistance that firms would find most useful. For example, most of the loans and financial assistance currently extended by Taipei's Export-Import Bank go to large firms. Mechanisms to broaden access by smaller firms may reduce their dependence upon buyers and trading companies focused on the U.S. market. Besides greater financial assistance, market information needs to be made available to Taiwan's small- and medium-sized enterprises, which account for over 75 percent of the nation's exports. Domestic market growth and investment would benefit from long-run efforts that focus on improving the climate for firm growth, by removing any legal discouragements to firm expansion and improving Taiwan's underdeveloped financial market. Doing so should also improve the climate for joint ventures with foreign investors.

6. Encouragement of Foreign Direct Investment

In the area of foreign investment, the recent actions taken to strengthen domestic copyright and trademark protection will probably encourage U.S. firms to shift more of their production to Taiwan, but these rules need to be more strictly enforced. Currently some outsiders believe that enforcement is slack, and, consequently, that the laws are often violated. A government incentive program may help to encourage U.S. investors to use their facilities in Taipei as an export base, rather than as a mere processing center. The recent relaxation of controls on profit repatriation from marketing subsidiaries should also enhance the attractiveness of Taiwan for a broad range of foreign investments. Improved auditing and reporting requirements would make foreign companies less wary of entering into joint venture arrangements with Taiwanese firms. Further improvements in the financial infrastructure in such areas as banking, capital mobilization, the tax structure, the system for imposing duties and providing investment incentives, and the system for resolving trade and investment problems (e.g., a more formal mechanism, such as the MOSS talks between the U.S. and Japan) together with liberalization of the entry and re-entry requirements, the system of international communications (especially computer communications), and cumbersome red tape would greatly improve the business climate for both domestic and foreign-owned businesses. Such reforms combined with increased infrastructure investment will no doubt increase Taiwan's attractiveness as a location site, but the government also needs to improve its promotion efforts — especially its data collection and preparation. Special efforts should be made to attract more Japanese investments that are explicitly designed to export back to the Japanese market.

7. Encouragement of Taiwanese Foreign Investment

Increased encouragement of Taiwanese foreign investment abroad is also necessary. Such investment would not only help recycle Taipei's huge foreign exchange surplus, but, if invested in the United States, also help reduce political tensions. In this respect, Taipei could learn something from Tokyo, which has been much more successful at managing its payments surplus. The R.O.C. government may be reluctant to loosen significantly its restrictions on capital movement abroad for fear of encouraging capital flight. However, if the motivation is strong enough, such capital flight can occur, despite official restrictions. It would be wise for Taipei to concentrate on strengthening its economy and smoothing over political tensions with its trading partners. Such actions would serve to increase domestic confidence and reduce the likelihood of major destabilizing capital outflows. Controls to restrain capital flight could be kept on the books and implemented, if necessary.

8. Summation

Increasing infrastructure investment and letting the exchange rate become more flexible would contribute to improving the domestic savings-investment balance. These actions, if supplemented by other policies — financial market liberalization, reduced savings incentives, improved investment incentives, lower budget surpluses, etc. — could sharply reduce the main macroeconomic imbalance that, in conjunction with the opposite U.S. imbalance, has so strongly distorted bilateral trade flows, and at the same time could serve to stimulate economic growth.

As long as the United States continues to run large budget deficits, it will continue to run large trade deficits; and long-term structural factors will lead to a disproportionate bilateral deficit with Taiwan. The U.S. imbalance and the existence of a structural deficit, however, should not be used as a justification by Taipei to do nothing. There are many concrete steps that Taipei can take, on its own, to deal with its bilateral trade problems with the United States. Political reality and domestic economic health demand that the R.O.C. government continue to move prudently, but they must act more urgently. The situation is rapidly getting worse, rather than better. In 1986, Taiwan's exports to the United States grew 20 percent, while its imports grew only 16 percent, despite the increase in domestic investment in the second half of the year. Even if Taiwanese policymakers cannot on their own eliminate the deficit, they can significantly reduce it, and, in the process, ease the political tensions generated by the deficit. At the moment, the question has become less economic than political.

VI. THE ROAD AHEAD

A. The Policy Problem

During the past two or three years, Taiwan and South Korea have shared the spotlight with Japan as sources of the United States' foreign trade difficulties and as targets of U.S. protectionist pressures. The rapid penetration of U.S. markets by both Taiwanese and South Korean products, the sluggishness of U.S. exports to these countries, and the dramatic worsening of the U.S. trade balance with both countries are among the causes of these concerns. The United States' attention has been especially focused on the massive bilateral trade deficit with Taiwan, which reached US $13.5 or $15.7 billion in 1986, depending on whether Taiwanese or U.S. statistics are used. American imports from Taiwan are three times its exports to Taiwan. There is a substantial possibility, not only that more protectionist legislation will be adopted in the United States, but also that such legislation will be applied in ways that specifically target imports from Japan and the East Asian NICs.

The enormous growth of the U.S. trade deficit with Taiwan, although partly a reflection of factors specific to the bilateral relationship, has mainly been due to a general decline in the international competitiveness of goods from the United States. In recent years, the major overvaluation of the US dollar from 1981 through 1985 and relatively slow long-term productivity growth in the United States have been mainly responsible for the surge in imports into the U.S. market and the sluggishness of U.S. exports. These developments have resulted in an overall U.S. trade deficit approaching US $170 billion in 1986.

Taiwan is but one of many countries with which the United States has major trade problems and runs continuing trade deficits. Indeed, the United States' bilateral trade balances have worsened with almost all of its major trading partners since the early 1980s. Taiwan accounted for the third largest U.S. bilateral trade deficit in 1985 (US $13 billion),[1] but it is only one of 19 countries that have bilateral trade surpluses with the United States in excess of US $1 billion. In the same year, the U.S. bilateral deficit with Japan was US $50 billion and that with South Korea was $5 billion.

A substantial depreciation of the dollar, along current lines, will eventually bring a reduction of the U.S. deficit, but this may take two or three years.[2] In the meantime, however, the growing trade deficit continues to be a drag on U.S. economic activity. Furthermore, by accelerating the loss of jobs in the manufacturing sector, it has also stimulated protectionist responses within the U.S. Congress.

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[1] These figures are from U.S. Department of Commerce statistics. They are used in this case to provide comparability with South Korean and Japanese figures. Taiwanese authorities place the 1985 bilateral surplus at US $10 billion (see chapter 5).

[2] In fact, the impact of the dollar depreciation on trade flows, although slow in coming to pass, is now beginning to be evident. According to a recent *New York Times* article, there was a 44 percent drop in the U.S. deficit in December 1986, mostly from a drop in imports. Although the trade deficit for 1986 will exceed 1985, the trend seems to be moving in the expected direction. See: Robert D. Hershey, Jr., "U.S. Trade Deficit, in Reversal, Fell 44% in December," *The New York Times* (January 31, 1987), p.1.

In this environment, the Reagan administration has sought to fend off protectionist moves in the U.S. Congress by shifting the focus of the trade debate from protecting the U.S. market to the opening up of foreign markets. At the same time, the administration has vigorously applied U.S. trade statutes with respect to actions by specific countries. For example, the administration opposed Congressional trade proposals that would have reduced the President's discretion in resolving trade disputes (evidenced by the Presidential veto of the Jenkins Bill), while concurrently initiating investigations under section 301 of the 1974 Trade Act.[3] In addition, for the first time, the United States government initiated an action under section 307 of the Trade and Tariff Act of 1984 with respect to Taiwan's export performance requirements in the automobile sector. Yet, despite this aggressive use of existing trade laws, many bills have been introduced in the Congress to reduce or eliminate Presidential discretion or to force the President's hand.[4]

Although all of America's major trading partners doubtless view these protectionist pressures in the United States with alarm, fears about the potential impact of protectionism are felt especially keenly in Taiwan and South Korea. Taiwan is more vulnerable to American actions than South Korea and Japan. With exports equivalent to more than 50 percent of its GNP, Taiwan is extraordinarily dependent on foreign trade. Moreover, Taiwan sends almost 50 percent of its exports to the U.S. market. Obviously, increased American protectionism poses a serious threat to Taiwan's economy. In addition, due to its ambiguous political status, Taiwan's government treats the nation's economic performance as a fundamental component of its political legitimacy, while trade relations with other countries have become a substitute for formal diplomatic ties. The United States is not only Taiwan's most important trading partner, but also its major source of political support — despite the attenuation of that support in recent years. The erection of trade barriers in the United States thus not only hurts Taiwan's economy, but also weakens it politically. The United States — both as a market and as a political ally — is, of course, also extremely important to South Korea and Japan. The magnitude of the trading relationship with the United States makes developments in U.S. trade policy of central concern to Japanese and South Korean policymakers and business executives. Nevertheless, both countries, unlike Taiwan, enjoy deep and enduring political and security relationships with the United States — giving them greater influence in bilateral and multilateral negotiations than Taiwan.

Although trade with the U.S. is clearly more important to Taiwan, South Korea and, arguably, Japan, than trade with Taiwan, South Korea or Japan is to the U.S., these countries each provide important, if different, economic and political benefits to the United States. The great risk is that current trade tensions could lead to policy responses that would put the mutual long-term benefits of these relationships, developed since the early 1950s, at risk.

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[3] These investigations have included Brazilian computers and "informatics" products, Japanese manufactured tobacco products, South Korean insurance services and intellectual property protection, and Spanish and Portuguese agricultural tariffs, among others.

[4] Common elements of these trade bills include: elimination or reduction in Presidential discretion as to whether to provide relief when the International Trade Commission has found imports to be a substantial cause of serious injury to the U.S. industry; expansion of the practices that would be considered unfair under section 301; and elimination of Presidential discretion as to whether to retaliate under section 301 in response to foreign government practices that violate existing trade agreements.

B. Differences in Industrial and Economic Policies

In some respects, the growing trade tensions between the United States and its Asian partners have been aggravated by these three nations' industrial and economic policies. These policies have also affected the countries' respective abilities to respond to bilateral trade frictions with the United States. Furthermore, contrary to the popular perception, these countries are more different from each other than they are alike and have followed very different economic policies. Accordingly, it is necessary to understand the major differences in these countries' policies and what these differences mean for their respective bilateral trade relations with the United States.

The basic Japanese approach to industrial policy and foreign trade, especially in the 1950s and 1960s, has been to target a few industries for growth — mainly by providing them with credit and access to foreign exchange, while shielding them from foreign competition. These priority enterprises were encouraged to concentrate on selected product lines and permitted to sell their products for high prices in the protected, but highly competitive domestic market first, moving to export only after consolidating their position at home. Government policy and economic institutions encouraged growth-oriented and bullish policies in the private sector, resulting in rapid increases in plant and equipment investment, which quickly raised productive capacity and strengthened the international competitiveness of Japanese firms. As Japan caught up with the United States and Western Europe, however, economic growth declined substantially, economic power became more widely diffused, and the objectives of economic policy became more complex and less oriented to export growth. In the process, the Japanese government lost the ability to direct private sector activity in as much detail as it had formerly exercised; and the private sector became less willing to follow government suggestions.

South Korea has followed the Japanese economic model closely, but, because of its much smaller domestic market, began its export-orientation at a much earlier phase in its development. Like Japan in the 1950s and 1960s, South Korea has relied on large firms to lead the growth of production and exports, although, unlike contemporary Japanese corporations, South Korean firms remain strongly influenced by the government. Dependence on the government for access to credit has kept the large South Korean firms (or *chaebols*) more or less in line with government dictates and the government has been willing, implicitly or explicitly, to underwrite some of the major industrial projects that the large firms have undertaken. This basic South Korean approach to industrial development favors large projects, risk-taking, and technological leapfrogging. Their size, diversity, and access to government financing has given South Korean firms considerable, although not unlimited, staying power.

Despite their successes, the South Koreans' bold development style has also led to the accumulation of a heavy foreign debt burden, as well as some major policy errors, which have been reflected in overcapacity and mistaken investment in such industries as shipbuilding, construction, and machinery. South Korea's policies have also resulted in a heavy concentration on the production of finished products, leaving South Korean industry weak in the production of components and intermediate products. This weakness in South Korea's industrial structure has left it highly dependent on Japanese imports. At the same time, the general South Korean industrial pattern of producing final goods for export has made it particularly difficult to penetrate the Japanese market, since South Korean goods are directly competing with Japanese products in a number of areas. In part for the same reason, South Korean exports have created rapid protectionist responses in other countries, most notably the United States. Doubtless in recognition of these difficulties, the South Korean government has recently begun introducing new policies aimed at strengthening small- and medium-sized businesses, including those producing components and intermediate products.

Taiwan has adopted more cautious industrial and economic policies than Japan and South Korea. Although the public sector remains large and government investment plays an important role in the economy, Taiwanese government officials have been less involved in the direct management of the economy than their South Korean counterparts. In most cases, the Taiwan government has not tried to direct industrial development along specific lines through the allocation of credit or other more direct means. Instead, the government has sought to create an environment conducive to stable, broad-based, and equitable growth. Individual entrepreneurship — as evidenced by the large number of small enterprises — has been more pronounced in Taiwan than in the other two countries, economic power more evenly distributed, and both industrial production and exports have displayed greater product diversification. In particular, Taiwan has developed a large productive capacity in semi-manufactured goods and components, as well as finished consumer goods. This diversified production base has helped the economy to adjust rapidly to economic recessions and changes in external demand. The larger share of semi-manufactured and intermediate goods in Taiwan's exports has also tended, until recently, to give Taiwan's exports a lower political profile than those of South Korea and Japan, since they often do not compete so directly with domestically produced goods.

At the same time, however, Taiwan's economy is more vulnerable to outside influences than those of South Korea and Japan. As indicated earlier, Taiwan's economy is highly dependent on international trade, and its exports are excessively concentrated on the U.S. market. The problem is exacerbated by the small size of most Taiwanese firms, which lack the capital necessary to diversify readily into new product lines or explore new markets in response to protectionist legislation. Such firms may very easily go bankrupt in the face of new trade barriers to exports of their products. Many also believe that Taiwan's small firms lack the ability to compete in high-technology products and, therefore, weaken the nation's future growth prospects.

What do these differences in economic and industrial policies augur for bilateral relations with the United States? In some respects, the implications are surprising. The very policies that have contributed to economic growth have also contributed to heightened trade tensions. In Taiwan's case, the country's conservative approach to economic policy has contributed to the massive growth of the trade surplus with the United States and, more recently, the underperformance of the Taiwanese economy. For example, until recently, the government has been reluctant to allow its currency to appreciate significantly relative to the US dollar, despite the overall strength of the economy. As a result, the New Taiwan dollar has been maintained at an artificially low rate relative to the US dollar, providing an excessive stimulus for Taiwanese exports to the United States. As part of the same conservative philosophy, the Taiwanese government has been far less tolerant of inflation than has the South Korean government; it has generally followed less expansionary fiscal and monetary policies in an effort to control inflation. These policies, however, while sound for the economy if viewed in isolation, can be carried too far. In the early 1980s, the government's reluctance to follow more expansionary fiscal policies resulted in a sharp decline in the average rate of economic growth to a level that is well below what the Taiwanese economy is capable of, and as a result, both total imports and imports from the United States were sharply curtailed. The reluctance of Taiwan's bureaucrats to take more aggressive action has thus clearly fueled the growth of its bilateral trade surplus with the United States.[5]

In contrast, the South Koreans' more daring approach to industrial development has strongly stimulated imports of capital goods and intermediate products and meant that, until recently, the country has run a bilateral trade deficit with the United States, as well as an overall current account deficit. While this approach has created problems for the South Korean economy, it has tended to limit U.S.-South Korean trade tensions until recent years. Despite the fact that they face greater political opposition to economic reform than the Taiwanese, the South Korean bureaucracy has also shown less resistance to trade-liberalization. The South Koreans have actually published a schedule for future tariff-liberalization — something the Taiwanese government adamantly opposes.

On the other hand, although all three of these countries have followed policies to protect their infant industries during their development drives, Taiwan has used less direct government intervention than South Korea and Japan. While it is true that both South Korea and Japan have reduced or eliminated many of the subsidies and other selective targeting measures they have employed in the past, Taiwan has always used less. This fact is not adequately understood within the United States.

In addition, Taiwan has been and remains more open to foreign direct investment than South Korea. U.S. firms in Taiwan express generally more favorable opinions about doing business in Taiwan than do U.S. firms in South Korea. Ironically, Taiwan's policies in this regard have become a two-edged sword. American investors constitute a strong pro-Taiwan constituency within the United States. Both individual American firms and the American economy overall benefit from continued manufacturing and sourcing activities in Taiwan, which are often vital if these firms are to retain their competitiveness both at home and abroad. On the other hand, the activities of these firms directly increase Taiwan's exports to the U.S. market, which increases tensions between the two countries.[6] Although U.S. trade officials recognize that many U.S. firms use Taiwan as either an export base or a sourcing site, it is not commonly recognized that these investments have become critical to the continued international competitiveness of many U.S. firms. Furthermore, American barriers to Taiwanese exports often hurt U.S. producers abroad. For their part, American investors are often unwilling to speak out for fear of being accused of exporting "American" jobs.

In general, where trade issues are concerned, American perceptions of these countries are often more important than the reality. Perceptions of the importance of the country to the United States, its economic policies, and its economic and political vitality and stability all play a role. In Taiwan's case, the country's low level of debt, high foreign exchange reserves, stable growth, and high domestic savings, combined with the decline in its perceived strategic importance, sharply reduce the political tolerance within the United States for continued protectionism — especially in areas where Taiwanese firms are already competitive internationally. As a diplomatically isolated country, heavily dependent on the U.S. market, Taiwan is susceptible to U.S. pressure, and, in the current domestic political climate, such pressure is likely to continue to be brought to bear. There are fewer constraints on the United States' ability to adopt a policy of brinksmanship in trade negotiations with Taiwan than there are with other nations. Indeed, many Taiwanese business executives and government officials have argued that Taiwan is being singled out for criticism. In reality, however, the U.S. government is not singling out Taiwan for abuse. The administration is aggressively pursuing market opening policies with many countries; Taiwan just happens to be more vulnerable to American pressure than most.

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[5] The conservatism of Taiwan's bureaucracy has also slowed progress in such areas as tariff liberalization. At least some individuals in the U.S. trade policy community believe that reform in Taiwan requires external political pressure on the bureaucracy, which would otherwise block any significant change. (This point was made in a recent speech by Sandy Kristoff of the U.S.T.R. to the Asia Society in New York.)

[6] In 1982, for example, 16.5 percent of Taiwan's exports of electronics and electronic appliances came from American-owned firms based in Taiwan (94 percent of whose production was for export in 1982). In 1981, 69 percent of the exports of American-owned electronics firms went to the United States (see chapter 5 for more detail).

In contrast, both South Korea and Japan are less vulnerable to U.S. pressure. South Korea is perceived in the United States as saddled with a high debt burden and considerable political uncertainty. Its geopolitical significance to the United States and the growing perception in the United States that South Korea is trying to liberalize, both politically and economically, may make the administration less confrontational in some respects. Not only is South Korea considered to be of greater political importance to the United States, it is also seen to be more constrained by domestic political pressures than is the case with Taiwan. Even so, U.S. negotiators have pursued an aggressive market-opening strategy vis-a-vis South Korea that clearly will continue. In turn, American perceptions of Japan are extremely mixed. Japan's domestic economic success and huge trade surplus have created considerable hostility within the United States to Japan's perceived unwillingness to "share the burdens" of an advanced industrial country. But these feelings have, to date, been offset by the broad-based economic, political, and security relations that exist between the two countries. Still, while in general, brinksmanship has been avoided in U.S.-Japanese relations, relations between the two countries have become tense very quickly over specific issues. Moreover, the frustrations U.S. government officials and business executives experience in dealing with Japan often spill over into the handling of U.S. relations with other countries in the region.[7]

Such spill over is not constructive. As we have seen, each of these countries has very different economic policies and patterns of industrial development. These differences are an important part of the trade problem and must be part of any solution to that problem. Although each country faces similar trade problems with the United States, their individual responses to the problem may frequently differ. The following section discusses some future actions that the Taiwanese government and the U.S. government might consider in their mutual efforts to reduce trade frictions. In our focus on U.S.-Taiwan trade tensions, South Korean and Japanese comparisons are used to point out the unique and common aspects of possible solutions to the current problem.

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[7] There is a Malaysian saying that when two elephants fight the grass is trampled. The other Asian countries — including Taiwan and South Korea — often feel like grass under the feet of two battling behemoths — the United States and Japan.

C. Policy Implications

When considering the causes of U.S.-Taiwan trade tensions, it is important to remember that some of the sources of the bilateral trade deficit can be changed fairly easily, while others are of a systemic nature and therefore much more difficult to alter. In thinking about how to ameliorate bilateral trade tensions, therefore, it is necessary to differentiate between long-term policies that support fundamental shifts in bilateral or multilateral trade patterns and other actions that are aimed at diffusing current tensions. These latter actions may or may not result in significant changes in trade flows, but can reduce existing political tensions. In light of current trade frictions, short-term actions to diffuse tensions have become a critical priority. All participants must seek to buy time while other policies are pursued to correct the more basic macroeconomic and structural sources of the trade imbalances.

Over the long-term, there are a number of specific actions that Taiwan could take that could have positive effects on the domestic economy, while at the same time improving bilateral relations with the United States.

First, Taiwan needs to move toward a more open import regime. The experience of Japan indicates that lowering tariffs, abolishing licenses, and eliminating most formal quantitative restrictions, are necessary, but may not necessarily result in significant increases in imports. It has become clear that growing trade requires that firms establish a local presence in their export markets. Thus, a major opening of the Taiwanese economy will probably require large foreign direct investments in Taiwan, not just in export-oriented manufacturing, but also in manufacturing activities focused on the internal market, in banking and other financial services, and in the distribution system. Of course, it is foreign firms that must decide to invest in Taiwan. But, continued efforts by the Taiwanese government to create a more open economy and a more favorable investment climate are necessary. In this regard, the Taiwanese government needs to enforce more severely the much-praised legislation it has passed for the protection of intellectual property rights. Currently, there is still a considerable amount of property rights infringement.

Secondly, Taiwan needs to diversify its export and import markets. In particular, Taiwan must seek ways to increase its exports to Japan. Taiwan's success in shifting its exports away from the U.S. market and increasingly toward the Japanese market, of course, will depend in no small measure on developments within Japan. Japanese actions to liberalize their imports of manufactured products would have the greatest impact. It is important that Taiwanese government officials and business executives continue to push for greater access to the Japanese market — perhaps in cooperation with the United States. Only with vigorous and sustained efforts in this direction will any change come to pass.

Specific steps that would help to diversify Taiwan's exports more broadly would include improvements in support services (both public and private) to help firms market overseas and efforts to expand the use of the R.O.C. as an export base by foreign investors interested in markets other than the United States. In particular, there is much discussion about the potential of U.S.-R.O.C. joint-ventures as mechanisms for diversifying Taiwan's exports and penetrating the Japanese market. To make such ventures more attractive, however, the government needs to increase Taiwan's attractiveness as a location site by strictly enforcing its new intellectual property rights legislation, improving its financial system as well as its auditing and reporting requirements, and increasing domestic infrastructure investment.

The most important step that could be taken that would bolster export-diversification away from the U.S. market and encourage a more balanced geographic distribution of imports (mainly away from Japan and toward the United States) would be to base the NT dollar exchange rate on a market basket of foreign currencies. Over the long-term, this would moderate some of the distortions that occurred in the first half of the 1980s. Some appreciation of the NT dollar has recently been allowed to occur, but further movement clearly seems needed.

Of course, once an exchange rate has been out of line for an extended period of time, moving it toward balance can have high costs. These costs could be reduced to some degree if the appreciation of the NT dollar was made contingent upon the appreciation of the currencies of Taiwan's major competitors in the region (i.e., South Korea, Hong Kong, Singapore, etc.). Such a step would limit the potential damage that a significant appreciation of the NT dollar might do to the long-run competitiveness of Taiwan's exports. One method of achieving this linkage could be through informal multilateral discussions on regional economic concerns involving the United States, Japan, Taiwan, and Taiwan's regional competitors. Such a forum could discuss the current trade problems and issues facing the region, including increased American protectionism, Japanese market barriers, foreign investment, exchange rates, tariff reform, and service liberalization. Since the concerns of all the states participating would be discussed, such an approach would defuse charges from opposition elements in some states (e.g., South Korea) that the negotiators were merely bowing to American pressure. Furthermore, any agreements reached would remain merely informal understandings on the need to take cooperative actions on certain key issues, including exchange rate realignment. In this fashion, linkages could be established that would make Taiwanese liberalization efforts contingent upon the actions of its rivals and vice versa, but the public visibility of a formally negotiated agreement could be avoided.

Third, if Taiwan is not to run large trade and current account surpluses on a consistent basis, it needs to increase the rate of domestic investment and probably allow the level of domestic savings to be reduced. There is a great need in Taiwan for large investments in infrastructure of all kinds. Such investments could raise both national welfare and imports, without stimulating an export drive. The government has increased public investment in the past year by beginning to implement several large-scale infrastructure projects; however, even larger investment increases are necessary. Efforts should be made to identify investment areas that both would be good for the domestic economy and would tend to reduce Taiwan's bilateral trade surplus with the United States.

Fourth, excess savings will exist even with large increases in investment spending. Savings are simply at higher levels than are currently needed for investment purposes at this stage of Taiwan's development. In part, this reflects government efforts to restrain consumer spending. Steps could be taken to encourage new patterns of consumption that the country could afford and that would contribute to the public welfare (e.g., increased mortgage financing and consumer credit could be offered).

Fifth, the Taiwanese government could still further open to foreigners its bidding process on large projects. With public investment accounting for approximately half of domestic investment and with investment goods accounting for a significant share of

U.S. exports to Taiwan, the trade impact of such an opening could be large, especially in high-technology products such as communications, medical, and pollution control equipment.

In fact, Taiwan is already taking some measures that are consistent with these general long-term objectives and which are likely, at the same time, to contribute to some reduction of its current trade surplus. As mentioned above, the government has allowed the NT dollar to appreciate against the US dollar. In addition, the government has recently taken an important step towards improving the climate for foreign direct investment by proposing to permit foreign firms to repatriate profits, not only from manufacturing activities but also from purely trading activities. Sometime in 1987, it should be possible for a U.S. firm to set up an office in Taipei, import manufactured goods from the United States to Taiwan, sell them, and then remit the profits from this trading activity back to the United States.[8]

There are a variety of other measures that Taiwan might usefully pursue that would not substantially reduce its trade surplus with the United States, but would be well received politically in the U.S. and would have positive effects on the Taiwanese economy. First, the government could further the goal of import-liberalization by accelerating its reductions of import barriers in those areas where U.S. producers enjoy a large competitive cost advantage, as well as in those areas in which Taiwanese producers have a cost advantage. Some progress has already been made in this direction, but further steps are necessary. In this regard, a promising area for liberalization is in services such as advertising, insurance, leasing, business services, fast foods, and distribution, among others. Services generally represent an area in which the United States has great experience and some cost advantages. In addition, they have been clearly identified by the government of Taiwan as "priority" areas for future growth. Development of Taiwan's service industries through foreign investment and other activities would be beneficial for the Taiwanese economy and could have some positive effects on easing the trade imbalance. Reductions of import and investment barriers thus can be highly visible and useful political gestures to Washington, without seriously harming Taiwanese economic interests. Taiwan should also recognize the need to press ahead with import-liberalization in areas that are important to the United States, even if such liberalization would create some costs for Taiwanese industries.

Second, in an effort to diffuse bilateral trade tensions, the Taiwanese government should consider publishing a formal schedule for the liberalization of various sectors of the economy, akin in form to that in South Korea. This schedule would serve several important functions. It could have significant symbolic value to U.S. trade negotiators and perhaps to the U.S. Congress as well. In addition, by publishing a formal schedule outlining where, when, and in what forms liberalization would occur, the Taiwanese government would be putting domestic industries on notice. Domestic businesses would then have a firm basis upon which to make future investment decisions. Although considerable political resistance to liberalization will naturally arise in various industries, the schedule can help support the long process of weaning domestic industries from relying on a protected home market.

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[8] At the moment, foreign exchange remittances from manufacturing activities are permitted, but remittances from purely trading activities are not.

Third, in addition to allowing greater foreign firm participation in government projects, the Taiwanese government might consider a short-term, explicit "Buy-American" policy for at least some of the current government projects. Since U.S. firms are highly competitive in many of these product areas in any case, such a policy would not impose excessive costs in the short-run, but it would increase Taiwan's imports of American-made products. Thus, although the maintenance of such a policy on a long-term basis would be unwise, it could ease bilateral tensions in the short-term.

Fourth, the Taiwanese authorities need to encourage further Taiwanese foreign investment abroad. Such investments would both recycle Taiwan's large foreign exchange surplus and, if invested in the United States, help reduce political tensions. Fears of capital flight must be put aside. Increased overseas investments are essential for strengthening Taiwan's economy, reducing the risk of inflation, and easing political tensions with Taiwan's trading partners. In the process, domestic business confidence would be increased and the likelihood of major destabilizing capital outflows reduced. Controls to restrain capital flight could be retained and imposed, if necessary.

Despite the various initiatives that Taiwan might usefully pursue in its efforts to reduce bilateral trade tensions with the United States, it would be neither possible nor desirable to put the entire burden of adjustment to the current trade imbalance on Taiwan. During the next few years, whatever Taiwan does is likely to have only a limited impact on the overall U.S. foreign trade position. To develop a stable and viable trade structure over the long-term will require adjustments not only by Taiwan, but also by Japan, the United States, and the other East Asian nations against whose products Taiwanese firms compete.

For its part, Japan will have to tolerate a higher level of competitive imports in its domestic market. Japan may also be forced by international and domestic pressures to increase its level of domestic investment, especially in infrastructure, in order to increase its level of imports and foster faster domestic economic growth.

The United States must continue its efforts to sustain and improve its competitiveness, by developing and taking advantage of technological improvements, by enhancing the efficiency of domestic markets and productivity growth, by reducing the fiscal deficit and maintaining monetary policies that support continued growth, by maintaining low inflation, and an exchange rate that reflects the underlying competitiveness of U.S. industry. At the same time, the U.S. private sector needs to explore the market opportunities present in the Asia-Pacific region in new and creative ways. In particular, U.S. firms still underestimate the potential of Taiwan as a market and an offshore investment site. Although Taiwan is a small country, its high per capita income and relatively egalitarian income distribution make it a growing market for consumer goods. Moreover, Taiwan's well-educated labor force offers considerable opportunities for various business arrangements (joint ventures, etc.) that could capitalize upon the good local and regional growth prospects.

Above all, the United States needs to recognize that it ultimately bears the greatest responsibility for its current economic difficulties. Until the U.S. government moves to correct the United States' macroeconomic imbalances, the U.S. will continue to suffer large trade deficits. Trade liberalization and other economic reforms by America's trading partners are necessary, but not adequate to solve the problem. None of the policy options available to Taiwanese officials offers the possibility of either rapid and dramatic increases in U.S. exports or large reductions in U.S. imports. If

Taiwanese officials cannot use the failures of American macroeconomic policy as an excuse for inaction, then American officials certainly cannot afford to avoid taking necessary actions by shifting the blame for their problems on to their trading partners.

Until the macroeconomic balances can be brought under control, both the U.S. government and the American public will need political patience. The United States cannot afford to sacrifice the long-term political and economic benefits of the relationships it has developed with its Asian partners in order to attain some minimal short-term trade gains. In particular, increases in protectionism in the United States can have a debilitating impact on the Taiwanese economy, which remains extremely dependent on the U.S. market. A strong economy enhances the social and political stability of Taiwan and is the necessary basis for the long-term democratization of the island's government. It is not in the national interest of the United States to undermine Taiwan's economy through protectionist measures that, in any case, cannot achieve their objective of significantly improving the U.S. trade balance.

It is extremely important for the United States to refrain, not only from extreme protectionist measures, but also from the easy forms of protectionism, such as a wide broadening of the allowable criteria for determining "unfair trade" and even more the negotiation of so-called voluntary agreements (VERs or OMAs) to restrict exports to the United States. Such agreements on steel, shoes, textiles, and clothing, circumvent GATT rules because they are voluntary, give price windfalls to exporters as well as protection to importers, and avoid big international confrontations. But, like other quotas, such measures not only hurt consumers in the importing country, but also insidiously encourage cartels and government controls in the exporting country. In many important respects, it remains up to the United States to ensure the continued dynamism of the international trading system. If the United States fails to correct the domestic economic problems that underlie its trade imbalances, and opts instead for the easy path of protectionism, it will pay a severe price — both the American and world economy, as well as important American political interests, will suffer as a result.

DATA APPENDIX

Table 2-I
TAIWAN: MAIN ECONOMIC INDICATORS

Period	Economic Growth Rate (%)	GNP (Million NT $)	Industrial Production Index (1981 = 100)	Per Capita Income (U.S. Dollars)
1951	—	12,252	1.87	137
1952	12.05	17,162	2.34	186
1953	9.32	22,859	2.92	159
1954	9.57	25,083	3.09	168
1955	8.09	29,835	3.50	192
1956	5.50	34,212	3.62	133
1957	7.29	39,881	4.09	149
1958	6.57	44,502	4.44	162
1959	7.74	51,369	4.96	122
1960	6.46	62,143	5.66	143
1961	6.83	69,594	6.54	142
1962	7.85	76,652	7.06	151
1963	9.37	86,710	7.71	166
1964	12.30	101,492	9.34	189
1965	11.02	111,895	10.86	203
1966	9.00	125,343	12.55	221
1967	10.56	144,839	14.65	249
1968	9.07	168,695	17.92	283
1969	9.00	195,693	21.48	320
1970	11.27	225,283	25.80	360
1971	12.89	262,125	31.89	410
1972	13.31	314,369	38.65	482
1973	12.82	407,419	44.92	642
1974	1.12	544,847	42.89	852
1975	4.27	581,150	46.54	888
1976	13.49	696,101	61.21	1,039
1977	10.05	815,349	69.37	1,189
1978	13.90	977,987	85.00	1,437
1979	8.46	1,180,952	90.40	1,748
1980	7.13	1,468,069	96.58	2,140
1981	5.71	1,739,794	100.00	2,424
1982	3.30	1,858,983	99.37	2,382
1983	7.88	2,044,090	113.36	2,515
1984	10.52	2,277,796	127.21	2,794
1985[1]	4.73	2,394,837	128.95	2,868

Note: 1) Estimated in December 1985.

Source: Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Republic of China, *Quarterly National Economic Trends TaiwanArea, The Republic of China* (May 1986).

Table 2-II
CHANGE IN INCOME DISTRIBUTION IN TAIWAN
(Shares of Aggregate Income by Family Quintiles)

Family Quintiles (from Lowest to highest income)	1964	1970	1974	1978	1980	1984
1st Quintile (poorest)	7.7	8.4	8.8	8.9	8.8	8.5
2nd Quintile	12.6	13.3	13.5	13.7	13.9	13.7
3rd Quintile	16.6	17.1	17.0	17.5	17.7	17.6
4th Quintile	22.0	22.5	22.1	22.7	22.8	22.8
5th Quintile (richest)	41.1	38.7	38.6	37.2	36.8	37.4
Ratio of income share of richest quintile to that of poorest quintile	5.3	4.6	4.4	4.2	4.2	4.4

Source: Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Republic of China, *Report on the Survey of Personal Income Distribution in Taiwan Area, Republic of China* (1984).

Table 2-III
INTERNATIONAL COMPARISON OF INCOME DISTRIBUTION
(Ratio of Top 20 Percent to Bottom 20 Percent Household Units)

Country	Year	Income Distribution Ratio
Taiwan	(1984)	4.4
Japan	(1969)	5.2
Sweden	(1972)	5.6
Sri Lanka	(1970)	5.8
Norway	(1970)	5.9
United Kingdom	(1973)	6.2
Netherlands	(1967)	6.6
West Germany	(1973)	7.1
South Korea	(1976)	7.9
Canada	(1969)	8.2
Italy	(1969)	9.1
United States	(1972)	9.5
France	(1970)	10.9
Argentina	(1970)	11.4
Philippines	(1971)	14.6
Malaysia	(1970)	17.2
Mexico	(1977)	19.9
Brazil	(1972)	33.3

Note: Ranked by increasing inequality. Countries focused on in this analysis are italicized.

Source: World Bank, *World Development Report 1980*.

Table 2-IV
TAIWAN: GDP BY INDUSTRY
(Millions of NT Dollars at 1981 Constant Prices)

	1961	1970	1980	1985[1]
GNP	279,067	654,345	1,645,875	2,244,329
GDP	279,255	655,280	1,648,257	2,208,138
Agriculture, forestry, hunting and fishing	27%	17%	8%	6%
Mining and Quarrying	3%	2%	1%	1%
Manufacturing	18%	30%	40%	41%
Construction	3%	4%	6%	4%
Utilities	2%	3%	3%	4%
Transport Storage and Communication	3%	4%	6%	6%
Wholesale and Retail Trade	14%	13%	13%	14%
Finance, Insurance and Real Estate	2%	3%	4%	4%
Housing	6%	6%	5%	6%
Government Services	18%	15%	10%	10%
Other Services	5%	5%	6%	6%
Less: imputed bank service charge	4,548	12,992	47,401	55,213
Net factor income from abroad	−188	−935	−2,382	36,191

Note: 1) Estimated in December 1985.

Source: Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Republic of China, *Quarterly National Economic Trends: Taiwan Area, Republic of China* (May 1986).

Table 3-I
JAPAN: NATIONAL SAVINGS, 1960-1984
(Billions of Yen)

Year	Finance or Gross Accumulation	Consumption or Fixed Capital	Total Savings	Savings by Institutional Sectors			Net Lending R.O.W.
				Enterprises	Govt.	Households and Others	
1960	5,183	1,723	3,509	—	—	—	—
1961	7,742	2,208	4,533	—	—	—	—
1964	8,723	3,807	5,533	—	—	—	—
1967	15,793	6,076	9,478	2,472	2,421	4,585	−68
1970	28,616	9,848	19,579	6,194	4,876	8,509	709
1973	42,791	15,296	28,847	5,922	-7,651	15,274	−33
1976	54,115	20,704	33,547	1,553	3,299	28,695	3,485
1979	70,014	27,644	42,230	8,412	5,305	28,513	
1980	74,857	30,730	43,997	7,356	6,215	30,426	−2,577
1981	81,491	34,070	46,092	5,141	7,873	32,996	1,147
1982	82,951	36,209	45,908	7,141	7,576	31,192	1,775
1983	84,395	38,394	45,036	6,234	6,516	32,286	4,960
1984	92,668	40,745	50,602	7,667	9,495	33,440	8,351

Sources: OECD, *Quarterly National Accounts #2* 1986 (France 1986); OECD, *National Accounts of OECD Countries*, Vol. 2 (Paris 1981); and OECD, *National Accounts, 1960-1984, Main Aggregates* Vol. II (Paris 1985).

Table 3-II
COMPOSITION OF JAPANESE GROSS DOMESTIC CAPITAL FORMATION, 1967-1984
(Billions of Yen)

	Gross Domestic Capital Formation			Gross Domestic Capital Formation (As a % of GDP)		
		Private Sector				
Year	Total	Amount	Share of Total (Percent)	Total	Private Sector	Public Sector
1967	15,815	11,775	74.5	35.4	26.4	9.0
1970	28,616	22,787	79.6	39.0	31.1	7.9
1973	42,823	32,154	75.1	38.1	28.6	9.5
1976	53,037	38,221	72.1	31.8	22.9	8.9
1979	71,984	49,810	69.2	32.5	22.5	10.0
1980	77,434	54,846	70.8	32.2	22.8	9.4
1981	80,344	56,290	70.1	31.2	21.9	9.3
1982	81,176	57,[illegible]90	70.7	30.1	21.3	8.8
1983	79,434	56,194	70.7	28.4	20.5	7.9
1984	84,542	61,072	72.2	28.4	20.5	7.9

Sources: OECD, *National Accounts of OECD Countries, 1962-1979, Vol. II*. (Paris, 1981); and OECD, *Quarterly National Accounts, 1986, Vol. II* (Paris, 1986).

Table 3-III
DISTRIBUTION OF JAPAN'S EXPORTS BY SITC CODE
(Billions of Yen and Percentages)

Commodity Groups	1974	1976	1978	1980	1982	1983	1984
Total (Billion Yen)	55,536	67,225	97,543	129,807	138,831	146,927	170,114
0 Food & Live Animals	1.5%	1.2%	1.0%	1.1%	0.9%	0.8%	0.7%
1 Beverages & Tobacco	0.0	0.1	0.1	0.1	0.1	0.1	0.1
2 Crude Materials (Excluding Fuel)	2.0	1.3	1.1	1.0	0.8	0.8	0.7
3 Mineral Fuels	0.4	0.1	0.2	0.4	0.3	0.3	0.3
4 Animal & Vegetable Oil and Fats	0.1	0.0	0.1	0.0	0.0	0.0	0.1
5 Chemicals	7.3	5.6	5.2	5.2	5.0	4.7	4.5
6 Basic Manufactures	33.0	28.1	23.7	24.0	22.4	19.7	17.7
7 Machinery & Transportation Equip.	45.5	53.4	60.0	54.8	56.2	57.9	60.4
8 Misc. Manufactures	7.9	9.0	10.7	12.0	13.5	14.4	14.5
9 Unclassified Goods	1.5	1.0	0.9	1.2	1.1	1.1	1.0

Sources: OECD, *Japan: OECD Economic Surveys, 1981-82* (Paris, July 1982); OECD, *Japan: OECD Economic Surveys, 1984-85* (Paris, August 1985).

Table 3-V

TRENDS IN FOREIGN DIRECT INVESTMENT IN JAPAN (FY 1967-1985)

(Millions of US Dollars)

Year	Approximate Number of Cases	Approximate Value
1967	100	25
1968	125	50
1969	175	50
1970	200	100
1971	250	260
1972	370	160
1973	375	160
1974	280	150
1975	260	160
1976	270	200
1977	275	220
1978	300	230
1979	275	500
1980	350	295
1981	400	430
1982	430	750
1983	560	810
1984	841	512
1985	832	465

Note: Values are approximations based on MITI gr[illegible] presentation.

Sources: Ministry of International Trade and Industry (Tokyo, December 1985); and Japan Economic Institute, *JEI Reports* #37A (October 10, 1986).

Table 3-VI
CUMULATIVE DIRECT FOREIGN INVESTMENT IN JAPAN BY COUNTRY[1]
(Millions of US Dollars)

Country	Number of Cases	Value
USA	2,144	3,195
United Kingdom	364	318
Switzerland	246	309
West Germany	286	228
Netherlands	102	119
France	213	119
Canada	23	111
Panama	—	32
Belgium	—	5
Other	—	1,631
TOTAL	5,661	6,065

Note: 1) As of March 31, 1985.

Source: *Japan 1985: An International Comparison* (Tokyo, Japan: Keizai Koho Center, 1985).

Table 3-VII
JAPAN'S DIRECT OVERSEAS INVESTMENT BY REGION AND INDUSTRY[1]
(Millions of US Dollars)

	North America		Asia		Europe		Total	
	No. of Cases	Amount	No. of Cases	Amount	No. of Cases	Amount	No. of Cases	Amount
Iron & Nonferrous Metals	132	913	559	1,661	302	224	1,222	4,805
Chemicals	193	591	738	1,253	84	202	1,186	3,849
Electrical Machinery	403	1,752	977	781	118	352	1,639	3,234
Transportation Equipment	81	975	233	541	26	299	413	2,746
Textiles	130	243	683	1,173	110	185	1,135	2,055
General Machinery	350	533	614	504	138	189	1,249	1,619
Lumber & Pulp	82	598	281	186	2	0	491	1,106
MANUFACTURING, TOTAL	2,156	6,483	5,601	7,057	948	1,765	10,148	22,048
Mining	228	896	178	5,883	11	862	897	11,158
Commerce	4,969	6,645	1,988	922	1,652	2,076	9,652	11,128
Finance & Insurance	165	2,729	204	613	238	2,742	777	7,054
Transportation	100	44	99	168	17	6	1,712	4,660
TOTAL	12,276	21,469	10,844	18,027	3,497	9,072	34,313	71,431

Note: 1) As of March 31, 1985.

Source: *Japan 1985: An International Comparison* (Tokyo, Japan: Keizai Koho Center, 1985), p. 57.

Table 4-I
SOUTH KOREA: UN RECONSTRUCTION AID AND U.S. AID FLOWS, 1953-75
(Millions of US Dollars)

Source	1953	1954	1955	1956	1957	1958	1959	1960
U.S.-Bilateral	13	108	206	271	369	314	220	245
Non-Project Supporting Assistance	—	—	—	—	—	—	—	—
Project Assistance	—	—	—	—	—	—	—	—
PL480 Sales	—	—	—	—	—	—	—	—
PL480 Title I & II	—	—	—	—	—	—	—	—
PL480 Loans	—	—	—	—	—	—	—	—
Development Loans	—	—	—	—	—	—	—	—
CRIK[1]	159	50	9	0.3	—	—	—	—
UNKRA[2]	30	21	22	22	14	8	2	0.2
Total	201	180	237	294	383	321	222	245
Aid as a Percent of Imports	58.3	73.9	69.3	76.1	86.6	84.9	73.1	71.4
Aid as a Percent of GNP	2.5[3]	4.9[3]	10.3[3]	9.7	9.7	7.8	5.1	6.3
Aid as a Percent of Gross Domestic Capital Formation	30.1[3]	54.0[3]	98.7[3]	91.9	92.2	76.4	46.2	57.2

Notes: 1) United Nations Civil Relief in Korea. 2) United Nations Korea Reconstruction Agency. 3) These low ratios are due to exchange rate shifts. In 1953 the exchange rate was W6 = US$1; 1954: W18 = US$1; 1955: W50 = US$1.

Table 4-I (Continued)
SOUTH KOREA: UN RECONSTRUCTION AID AND U.S. AID FLOWS, 1953-75
(Millions of US Dollars)

Source	1969	1970	1971	1972	1973	1974	1975
U.S.-Bilateral							
Non-Project Supporting Assistance	17	14	9	0.6	—	—	—
Project Assistance	7	6	5	3	3	2	0.9
PL480 Sales	65	55	31	4	—	—	—
PL480 Title I & II	—	—	—	—	—	—	—
PL480 Loans	118	68	85	197	61	—	84
Development Loans	32	39	56	37	28	44	192
CRIK[1]	—	—	—	—	—	—	—
UNKRA[2]	—	—	—	—	—	—	—
Total	240	182	186	241	92	46	277
Aid as a Percent of Imports	13.2	9.2	7.8	9.6	2.2	0.7	3.8
Aid as a Percent of GNP	3.2	2.1	1.9	2.3	0.7	0.2	1.3
Aid as a Percent of Gross Domestic Capital Formation	12.4	9.0	8.9	11.4	2.9	1.0	5.2

Sources: Anne O. Krueger, *The Developmental Role of the Foreign Sector and Aid* (Cambridge, MA: Harvard University Press, 1979), pp. 67, 107, 113, 139, 153; and International Monetary Fund, *International Financial Statistics*.

Table 3-IV
DISTRIBUTION OF JAPAN'S IMPORTS BY SITC CODE
(Billions of Yen and Percentages)

Commodity Groups	1974	1976	1978	1980	1982	1983	1984
Total (Billion Yen)	62,110	64,799	79,343	140,528	131,931	126,393	136,503
0 Foods & live Animals	12.5%	13.7%	13.6%	9.9%	10.2%	11.1%	11.1%
1 Beverages & Tobacco	0.6	0.7	0.8	0.5	0.6	0.7	0.6
2 Crude Materials (Excluding Fuel)	22.6	20.0	19.0	16.[illegible]	14.1	14.2	14.0
3 Mineral Fuels	40.1	43.7	39.5	49.8	49.7	46.6	44.2
4 Animal & Vegetable Oil and Fats	0.4	0.3	0.3	0.2	0.2	0.2	0.3
5 Chemicals	4.3	4.1	4.7	4	5.2	5.7	6.1
6 Basic Manufactures	8.3	6.6	8.4	7.5	7.5	8.0	8.7
7 Machinery & Transportation Equip	6.9	6.3	7.2	6.2	6.2	7.4	7.9
8 Misc. Manufactures	3.9	3.7	4.9	3.6	4.1	4.1	4.5
9 Unclassified Goods	0.3	0.9	1.6	1.1	2.0	1.9	2.5

Sources: OECD, *Japan: OECD Economic Surveys, 1981-82* (Paris, July 1982); and OECD, *Japan: OECD Economic Surveys, 1984-85* (Paris, August 1985).

Table 4-I (Continued)
SOUTH KOREA: UN RECONSTRUCTION AID AND U.S. AID FLOWS, 1953-75
(Millions of US Dollars)

Source	1961	1962	1963	1964	1965	1966	1967	1968
U.S.-Bilateral								
Non-Project Supporting Assistance	114	127	103	73	79	55	60	44
Project Assistance	30	22	13	5	4	5	6	10
PL480 Sales	33	36	63	95	54	35	58	58
PL480 Title I & II	10	24	22	28	28	—	—	—
PL480 Loans	—	—	—	—	—	28	32	47
Development Loans	3	10	20	4	3	50	75	38
CRIK[1]	—	—	—	—	—	—	—	—
UNKRA[2]	—	—	—	—	—	—	—	—
Total	193	245	252	165	177	173	230	197
Aid as a Percent of Imports	61.1	58.1	62.4	40.8	38.2	24.2	23.1	13.5
Aid as a Percent of GNP	8.2	8.9	6.5	4.9	5.8	4.5	4.9	3.3
Aid as a Percent of Gross Domestic Capital Formation	71.0	65.0	48.2	43.5	39.6	22.3	22.6	13.2

Notes: 1) United Nations Civil Relief in Korea. 2) United Nations Korea Reconstruction Agency.

Table 4-II

PROFILE OF SOUTH KOREA'S EXTERNAL DEBT, 1965-1984

(Billions of US Dollars)

	Gross External Debt[1]		Net External Debt[2]		Short-Term Debt	
	Value	% of GNP	Value	% of GNP	Value	% of Gross External Debt
1965	0.18	5.89	0.05	1.65	—	—
1970	2.25	28.17	1.57	19.66	0.37	16.67
1973	4.26	31.55	2.76	20.44	0.70	16.46
1975	8.46	40.57	6.75	32.37	2.41	28.49
1977	12.65	33.80	7.60	20.31	3.72	29.37
1979	20.50	32.87	14.20	22.77	6.60	32.20
1980	27.37	44.72	19.90	32.51	10.61	38.78
1981	32.49	48.35	24.30	36.17	11.76	36.20
1982	37.31	52.70	28.00	39.55	14.22	38.10
1983	40.10	53.39	30.80	41.01	14.50	36.16
1984	45.00	55.50	—	—	17.70	39.20

Notes: 1) Gross external debt includes long-term, medium-term, and short-term debt. 2) Gross debt minus external assets, which include foreign exchange reserves, exports on credit, "A" account loans from the head offices of foreign banks to foreign branches of South Korean banks, and others.

Sources: Economic Planning Board, Republic of Korea, *Korean Economic Indicators* (1983); and Morgan Guaranty Trust Company, *Morgan International Data* (August 1985).

Table 4-III
SOUTH KOREA: SHARE OF MANUFACTURING PRODUCTION BY FIRM SIZE
(Percentages)

Year	*Manufacturing Firm Size (by Number of Employees)*				
	5-49	50-199	200-499	500-	Total
1963	34.9	23.6	13.6	27.9	100.0
	(93.1[1]	(5.6)	(0.9)	(0.4)	(100.0)
1972	[illegible]	16.1	20.6	50.9	100.0
	(88.2)	(8.3)	(2.2)	(1.3)	(100.0)
1976	7.0	14.9	20.2	57.3	100.0
	(79.5)	(14.5)	(3.8)	(2.2)	(100.0)
1982	9.2	17.1	16.8	56.9	100.0
	(81.1)	(14.1)	(3.2)	(1.6)	(100.0)

Note: 1) The figures in parentheses denote the percentage of firms in that category.

Sources: Economic Planning Board, Republic of Korea, *The Report on Mining and Manufacturing Survey*; and The Korea Development Bank, *Industry in Korea 1984* (Seoul, South Korea: Korea Development Bank, 1985), p. 14.

Table 4-IV
SOUTH KOREA: *CHAEBOL* SHARE IN MANUFACTURING SECTOR
(Percentages)

Groups	*Sales*			*Employment*		
	1978	1980	1982	1978	1980	1982
Top 5[1]	15.7	16.9	22.6	9.5	9.1	8.4
Top 10	21.2	23.8	30.2	13.9	12.8	12.2
Top 20	29.3	31.4	36.6	18.2	17.9	16.0
Top 30	34.1	36.0	40.7	22.2	22.4	18.6

Note: 1) The Five Largest *Chaebol* Business Groups, The Ten Largest . . ., etc.

Source: Young-Ki Lee, ''Conglomeration and Business Concentration: The Korean Case,'' in *Industrial Policies of the Republic of Korea and the Republic of China*, Papers and Discussions from the Joint KDI/CHIER Conference, November 21-22, 1985 (Seoul, South Korea: Korea Development Institute, 1985), p. 183.

Table 4-VI (Continued)

69	Metal Manufactures	774	1,104	1,123	1,408	1,420
691	Structures & Parts of Structures	147	328	394	581	557
7	Machinery & Transport Equipment	3,555	4,839	6,153	7,981	10,462
76	Telecommunications	1,087	1,283	1,111	1,540	1,857
761	TV Receivers	420	501	380	553	707
762	Radio Receivers	287	346	297	386	544
77	Electrical Machinery, Apparatus & Appliances	924	1,005	1,155	1,528	2,180
776	Transistors, Valves, etc.	518	525	651	881	1,337
78	Road Vehicles	363	458	425	334	669
79	Other Transport Equipment	792	1,600	2,940	3,856	4,866
793	Ships, Boats & Floating Structures	618	1,411	2,832	3,735	4,684
8	Misc. Manufactures	5,229	6,501	6,534	6,721	8,093
84	Clothing & Accessories	2,949	3,868	3,774	3,707	4,499
842	Men's Outerwear (Non-Knit)	668	925	867	714	885
843	Women's Outerwear (Non-Knit)	406	605	669	714	793
844	Undergarments (Non-Knit)	502	530	447	409	513
845	Knit Outerwear	508	703	635	629	884
848	Headgear, Non-Textile Clothing	486	628	652	717	855
85	Footwear	875	1,024	1,154	1,235	1,352
89	Misc. Manufactured Articles	761	821	893	955	1,298
894	Toys, SportingGoods, etc.	368	366	434	429	675
9	Goods Not Classified by Kind	47	114	47	38	34
TOTAL IMPORTS		17,505	21,254	21,853	24,445	29,245

Source: Economic Planning Board, Republic of Korea, *Korea Statistical Yearbook 1985*

Table 4-VII
VIEWS OF JAPANESE AND U.S. AFFILIATES IN SOUTH KOREAN MANUFACTURING INDUSTRIES ON TECHNOLOGY TRANSFER THROUGH FDI
(1979 Survey)

A. "WHAT ARE THE TYPES OF TECHNICAL OR MANAGERIAL ASSISTANCE PROVIDED BY YOUR FOREIGN PARTNER?"[1]

(Percentage of Yes Answers)

Types of Assistance	*Japanese Affiliates*	*US Affiliates*
Management Know-How	16%	33%
Patented Technology	16	43
Technical Assistance	78	90
Marketing Assistance	49	48
Assembly of Machinery & Maintenance	35	29
Supply of Raw Materials & Intermediates	49	48
Others	4	0

B. "HAS TECHNOLOGY OR MANAGEMENT KNOW-HOW BEEN TRANSFERRED?"[2]

(Percentage of Yes Answers)

	Japanese Affiliates		*US Affiliates*	
	Technology	Management Know-How	Technology	Management Know-How
Effectively Transferred	70%	15%	86%	13%
Not Effectively Transferred	17	18	14	54
Others	6	0	5	0

Table 4-V
SOUTH KOREA: IMPORTS BY SITC CATEGORY, 1980-1984
(Millions of US Dollars)

SITC	Branch Description	1980	1981	1982	1983	1984
0	Food and Live Animals	1,797	2,721	1,561	1,712	1,622
04	Cereals & Cereal Preparations	1,087	1,950	960	1,016	1,007
041	Wheat	367	405	347	334	424
044	Maize, Unmilled	376	438	385	595	491
1	Beverages and Tobacco	84	67	10	30	65
2	Crude Materials (exc. fuel)	3,632	3,632	3,361	3,463	3,939
24	Cork and Wood	897	684	647	631	629
247	Other Wood in Rough	860	648	611	592	571
26	Textile Fiber & Their Wastes	779	856	770	809	928
263	Cotton	604	624	529	534	616
28	Metalliferous Ores & Metal Scrap	712	787	772	759	831
3	Mineral-Fuels	6,660	7,786	7,606	6,976	7,296
33	Petroleum & Petro Products	6,185	6,939	6,754	6,212	6,436
32	Coal, Coke	448	818	785	654	726
322	Coke, Lignite	433	786	766	638	709
334	Petroleum Products, Refined	507	524	625	608	624
4	Animal & Vegetable Oils	118	137	137	141	174
5	Chemicals	1,800	2,065	2,051	2,242	2,709
51	Organic Chemicals	950	997	979	1,021	1,247
6	Basic Manufactures	2,450	2,787	2,630	3,026	3,788
65	Textile Yarn, Fabrics, Made-up Articles	421	510	520	531	631
67	Iron & Steel	987	1,014	755	922	1,314

Table 4-V (Continued)
SOUTH KOREA: IMPORTS BY SITC CATEGORY, 1980-1984
(Millions of US Dollars)

68	Non-Ferrous Metals	346	394	347	446	531
69	Manufactures of Metal	223	258	338	329	408
7	Machinery & Transport Equip.	5,000	6,037	6,011	7,589	9,817
71	Power Generating Machinery and Equipment	539	707	672	624	800
72	Specialized Machinery	591	575	680	766	935
74	General Industrial Machinery	762	953	94[illegible]	951	1,158
76	Telecommunications	456	613	653	785	773
77	Electrical Machinery, Apparatus & Appliances	1,049	1,171	1,237	1,686	2,228
776	Transistors, Valves, etc.	527	611	638	923	1,295
79	Other Transport Equipment	876	1,350	1,223	1,978	3,041
793	Ships, Boats	472	873	1,119	1,798	2,709
8	Misc. Manufactures	687	759	787	915	1,117
9	Goods Not Classified by Kind	62	140	95	99	106
TOTAL IMPORTS		22,292	26,131	24,251	26,192	30,631

Source: Economic Planning Board, Republic of Korea. *Korea Statistical Yearbook, 1985.*

Table 4-VI
SOUTH KOREA: EXPORTS BY SITC CATEGORY, 1980-84
(Millions of US Dollars)

SITC Branch Description	1980	1981	1982	1983	1984
0 Food and Live Animals	1,153	1,323	1,081	1,092	1,149
03 Fish	676	834	758	733	775
1 Beverages & Tobacco	124	119	128	126	119
12 Tobacco &Tobacco Manufactures	87	107	115	117	109
121 Raw Tobacco	84	102	105	106	100
2 Crude Materials (excl. fuel)	331	284	273	292	328
3 Mineral Fuels	46	183	310	556	832
33 Petroleum &Petroleum Prods.	43	181	310	554	831
334 Refined Petroleum Products	24	150	278	523	792
4 Animal, Vegetable Oils & Fats	13	15	9	4	4
5 Chemicals	755	644	670	677	845
51 Organic Chemicals	159	177	150	178	210
56 Fertilizers, Manufactured	344	188	208	194	244
58 Artifical Resins & Plastics	133	137	173	166	221
6 Basic Manufacture	6,252	7,232	6,650	6,957	7,377
62 Rubber Manufactures	499	487	306	393	506
65 Textile Yarn, Fabrics, Made-up Articles	2,210	2,459	2,250	2,423	2,615
651 Textile Yarn	624	568	499	548	619
653 Synthetic Fabrics	807	1,048	950	1,061	1,148
67 Iron & Steel	1,651	1,843	1,901	1,832	2,045
674 Universals, Plates or Sheets of Iron/Steel	556	564	649	570	641
678 Tubes, Pipes & Fittings of Iron/Steel	362	515	357	399	500

Table 4-VII (Continued)

C. "WHAT IS THE EXTENT OF THE CONTRIBUTION MADE BY YOUR FOREIGN PARTNER TO INDIGENOUS TECHNOLOGY AND KNOW-HOW?"[1]

(Percentage of Yes Answers)

Possible Answers	*Japanese Affiliates*		*US Affiliates*	
	Technology	Management Know-How	Technology	Management Know-How
Large Contribution	78%	24%	95%	8%
No Large Contribution	14	33	5	19
Inferior to Indigenous Technology & Know-How	6	2	0	0

D. REASONS GIVEN FOR NON-TRANSFER OF TECHNOLOGY AND MANAGEMENT KNOW-HOW[2]

Possible Reasons	*Japanese Affiliates*	*US Affiliates*
Lack of Absorptive Capacity	20%	50%
Restrictions Imposed in Contract	20	17
Conscious Attempt to Prevent Transfer	60	0
Others	0	33

Notes: 1) Sample size: 51 Japanese affiliates and 21 US affiliates. 2) Sample size: 15 Japanese affiliates and 6 US affiliates.

Source: Chung H. Lee, "Transfer of Technology from Japan and the United States to South Korean Manufacturing Industries: A Comparative Study," *Hitotsubashi Journal of Economics*, Vol. 25 (1984), pp. 125-136.

Table 5-I

TAIWAN: PRIVATE PROPENSITY TO CONSUME AND TO SAVE, 1952-84

(Millions of NT Dollars)

Period	Private Disposable Income[1]	Private Consumption	Private Saving[1]	Average Propensity to. .		Marginal Propensity to. .	
				Consume	Save	Consume	Save
1952	13,006	12,676	330	0.97	0.03	1.05	−0.05
1953	17,827	17,307	520	0.97	0.03	0.96	0.04
1954	19,125	18,602	523	0.97	0.03	1.00	0.00
1955	22,342	21,540	802	0.96	0.04	0.91	0.09
1956	25,163	24,177	986	0.96	0.04	0.93	0.07
1957	28,857	27,684	1,173	0.96	0.04	0.95	0.05
1958	32,573	30,918	1,655	0.95	0.05	0.87	0.13
1959	37,214	35,502	1,712	0.95	0.05	0.99	0.01
1960	45,293	42,422	2,871	0.94	0.06	0.86	0.14
1961	51,355	47,345	4,010	0.92	0.08	0.81	0.19
1962	56,439	51,905	4,534	0.92	0.08	0.90	0.10
1963	62,913	55,683	7,230	0.89	0.11	0.58	0.42
1964	74,011	63,860	10,151	0.86	0.14	0.74	0.26
1965	80,318	70,918	9,400	0.88	0.12	1.12	−0.12
1966	90,207	76,473	13,734	0.85	0.15	0.56	0.44
1967	102,103	86,622	15,481	0.85	0.15	0.85	0.15
1968	115,835	100,901	14,934	0.87	0.13	1.04	−0.04
1969	127,071	112,957	14,114	0.89	0.11	1.07	−0.07
1970	151,794	126,734	25,060	0.83	0.17	0.56	0.44
1971	176,062	141,515	34,557	0.80	0.20	0.61	0.39
1972	206,563	181,288	41,227	0.79	0.21	0.71	0.29
1973	271,087	205,210	65,877	0.76	0.24	0.65	0.35
1974	370,543	296,213	74,329	0.80	0.20	0.92	0.08
1975	398,078	333,583	64,495	0.84	0.16	1.36	−0.36
1976	446,490	364,061	82,429	0.82	0.18	0.63	0.37
1977	529,324	420,565	108,759	0.79	0.21	0.68	0.32
1978	622,263	489,368	132,895	0.79	0.21	0.74	0.26
1979	747,267	592,615	154,652	0.79	0.21	0.83	0.17
1980	922,843	751,899	170,944	0.81	0.19	0.91	0.09
1981	1,129,824	901,877	227,947	0.80	0.20	0.72	0.28
1982	1,224,065	977,368	246,697	0.80	0.20	0.80	0.20
1983	1,351,243	1,052,627	298,616	0.78	0.22	0.59	0.41
1984[2]	1,513,575	1,138,222	375,353	0.75	0.25	0.53	0.47

Notes: 1) Includes income and savings of nonprofit institutions.
2) Estimate.

Source: Council for Economic Planning and Development, Republic of China, *Taiwan Statistical Data Book 1985*.

Table 5-II
TAIWAN'S EXPORTS BY SITC CODE
(Millions of NT Dollars)

Commodity Groups	1972	1976	1980	1983	1985
Total	100,791	289,139	711,433	813,904	801,847
0. Food & Live Animals	8.37%	8.07%	6.10%	6.67%	6.61%
1. Beverages & Tobacco	0.55%	0.49%	0.52%	0.50%	0.66%
2. Crude Materials (ex. fuels)	19.21%	14.40%	13.69%	12.80%	12.98%
3. Mineral Fuels	8.28%	17.19%	25.49%	23.99%	21.52%
4. Animal & Veg. Oil & Fats	0.50%	0.32%	0.24%	0.30%	0.27%
5. Chemicals	10.54%	11.45%	9.45%	11.83%	11.91%
6. Basic Manufacturers	15.61%	12.70%	12.25%	11.25%	11.63%
7. achinery & Transport Equip.	32.54%	30.59%	27.92%	26.77%	27.91%
8. Misc. Manufacturers	4.08%	4.36%	4.16%	5.62%	6.27%
9. Unclassified Goods	0.31%	0.44%	0.18%	0.27%	0.23%

Source: Department of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports and Imports, The Republic of China, (Taiwan District), April 1986, No. 200* (June 20, 1986).

Table 5-III
TAIWAN'S PRINCIPAL EXPORTS, 1985
(Millions of US Dollars)

Commodity	Value	Share (%)
Total	30,723	100.00
Electronics, Electrical Appliances, Machinery	6,447	20.98
Textile Products	6,053	19.70
Metal Products & Machinery	3,006	9.78
Footwear	2,385	7.76
Plastics & Products	1,305	4.25
Transportation Equipment	1,263	4.11
Timber Products and Furniture	1,261	4.10
Basic Metals	761	2.48
Iron & Steel	642	2.09
Dolls & Toys	595	1.94

Source: Council for Economic Planning and Development, Republic of China, *Economic Development: Taiwan, Republic of China* (April 1968).

Table 5-V
DISTRIBUTION OF TAIWAN'S IMPORTS BY SITC CODE
(Millions of NT Dollars)

Commodity Groups	1972	1976	1980	1983	1985
Total	100,791	289,139	711,433	813,904	801,847
0. Food & Live Animals	8.37%	8.07%	6.10%	6.67%	6.61%
1. Beverages & Tobacco	0.55%	0.49%	0.52%	0.50%	0.66%
2. Crude Materials (ex. fuels)	19.21%	14.40%	13.69%	12.80%	12.98%
3. Mineral Fuels	8.28%	17.19%	25.49%	23.99%	21.52%
4. Animal & Veg. Oil & Fats	0.50%	0.32%	0.24%	0.30%	0.27%
5. Chemicals	10.54%	11.45%	9.45%	11.83%	11.91%
6. Basic Manufacturers	15.61%	12.70%	12.25%	11.25%	11.63%
7. Machinery & Transport Equip.	32.54%	30.59%	27.92%	26.77%	27.91%
8. Misc. Manufacturers	4.08%	4.36%	4.16%	5.62%	6.27%
9. Unclassified Goods	0.31%	0.44%	0.18%	0.27%	0.23%

Source: Department of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports and Imports. The Republic of China. (Taiwan District). April 1986. No. 200* (June 20, 1986).

Table 5-VI
TAIWAN'S PRINCIPAL IMPORTS, 1985
(Millions of US Dollars)

Commodity	Value	Share (%)
Total	20,102	100.00
Crude Oil	3,337	16.60
Electronics, Electrical Appliances & Machinery	2,796	13.91
Machinery & Tools	1,941	9.66
Basic Metals	1,857	9.24
Chemicals	1,921	9.56
Food, Beverages, & Tobacco	872	4.34
Transportation Equipment	757	3.77
Corn	423	2.10
Soybeans	391	1.94
Logs & Lumber	313	1.56

Source: Council for Economic Planning and Development, Republic of China, *Economic Development: Taiwan, Republic of China* (April 1986).

Table 5-IV
TAIWAN'S MAJOR EXPORT COMMODITIES, 1981-85
(Millions of NT Dollars)

Commodity	1981	1982	1983	1984	1985
Fish, Live, Fresh or Chilled	13,344	9,428	11,123	11,108	11,169
Synthetic Yarn	9,367	10,617	11,086	12,246	13,988
Textured Nylon Yarn	4,574	2,444	2,225	2,125	2,108
Textured Polyester Yarn	4,550	4,028	5,377	8,412	12,866
Synthetic Fabrics	17,180	15,546	16,075	20,472	24,409
Knitted Outer Garments	45,170	44,782	49,518	60,836	55,387
Non-Knit Men's & Boys Outer Garments	21,5551	27,188	25,438	34,344	31,655
Non-Knit Women's, Girls, & Infants Outer Garments	13,226	15,643	18,411	22,612	22,526
Plywood	14,659	12,996	14,490	11,091	9,816
Wood, Bamboo, and Rattan Furniture	12,210	14,131	18,027	20,321	22,289
Calculating & Accounting Machines	4,825	6,707	15,625	35,847	49,059
B&W TV Receivers and Chassis	13,231	8,646	6,815	6,149	3,426
Color TV Receivers and Chassis	12,690	9,539	11,565	17,311	14,459

Table 5-IV (Continued)
TAIWAN'S MAJOR EXPORT COMMODITIES, 1981-85
(Millions of NT Dollars)

Commodity	1981	1982	1983	1984	1985
Thermionic Valves, Tubes & Transistors	21,620	22,644	25,972	36,440	34,437
Casette Recorders	14,673	13,722	13,941	16,678	13,276
Non-Motorized Cycles	6,197	5,690	9,008	11,197	12,090
Ships & Boats (exc. War Ships)	9,381	20,101	9,157	6,304	6,306
Other Plastic Articles	21,845	22,181	29,982	40,414	46,328
Plastic Footwear	29,922	28,870	32,255	43,097	47,871
Travel Goods, Handbags, etc.	25,140	26,947	30,739	32,757	31,237
Dolls and Toys	19,377	19,974	23,851	28,892	23,675
X-Mas Decorations	7,263	7,672	9,180	14,110	18,432
Total	829,756	864,248	1,005,422	1,204,697	1,222,904

Source: Department of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports & Imports. The Republic of China. (Taiwan District). April 1986. No. 200* (June 20, 1986).

Table 5-VII
TAIWAN'S MAJOR IMPORT COMMODITIES, 1981-1985
(Millions of NT Dollars)

Commodity	1981	1982	1983	1984	1985
Unmilled Corn	18,340	14,565	19,650	18,874	16,843
Soybean	14,074	13,232	14,849	17,378	15,588
Sawlogs & Veneer Logs	6,698	9,037	8,726	9,715	6,964
Rough Logs	163,597	150,840	164,234	149,392	133,149
Diesel Fuel & Gas Oils	16,956	4,845	5,137	9,973	4,085
Raw Cotton	11,782	14,968	13,166	16,830	14,355
Iron or Steel Plates & Sheets less than 3 mm thick	13,219	9,322	4,872	3,049	3,817
Boiler House Plant	9,481	6,727	5,344	1,689	2,147
Electrical Apparatus for Elec. Circuits	7,950	8,964	9,788	11,144	9,240
Other Telecommunications Equip.	7,905	6,548	8,685	9,931	7,653
Thermionic Valves, Tubes & Transistors, etc.	26,824	28,269	35,681	49,804	42,407
Other Parts for Motor Vehicles	10,082	7,899	10,523	11,032	8,996
Ships & Boats (exc. Warships)	3,711	10,447	13,209	2,949	4,670
Ships, Boats, & other Vessels for Breaking Up	9,637	12,093	12,435	14,502	14,461
Total	778,633	736,084	813,904	870,861	801,847

Source: Department of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports and Imports. The Republic of China. (Taiwan District) April 1986. No. 200* (June 20, 1986).

Table 5-VIII
TAIWAN'S LEADING EXPORT MARKETS, 1977-85
(Millions of NT Dollars)

1977		1979		1981		1983		1985	
Country	Amount	Country	Amount	Country	Amount	Country	Amount	Country	Amount
USA	137,996	USA	203,337	USA	299,629	USA	453,647	USA	588,141
Japan	42,507	Japan	80,885	Japan	90,129	Japan	99,128	Japan	137,754
Hong Kong	24,229	Hong Kong	41,023	Hong Kong	69,561	Hong Kong	65,782	Hong Kong	101,015
W. Germany	15,871	W. Germany	26,714	W. Germany	33,195	W. Germany	34,052	Canada	37,606
Canada	10,471	S. Arabia	17,127	Australia	24,887	S. Arabia	30,416	Singapore	35,215
U.K.	10,318	Singapore	15,195	S. Arabia	22,228	Canada	29,121	W. Germany	32,053
Australia	9,216	Australia	15,083	Singapore	21,594	Singapore	28,439	Australia	29,763
Indonesia	8,894	Canada	14,908	Canada	20,835	Australia	25,399	U.K.	25,886
Singapore	8,834	U.K.	14,606	U.K.	20,755	U.K.	24,609	S. Arabia	23,472
S. Arabia	8,578	Indonesia	14,348	Indonesia	15,557	Indonesia	17,168	Netherlands	18,215
Total	355,239	Total	579,298	Total	829,756	Total	1,005,422	Total	1,222,904

Sources: Directorate-General of Budget, Accounting, and Statistics, Executive Yuan, Republic of China, *Statistical Yearbook of the Republic of China 1985*; and Department of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports and Imports, The Republic of China (Taiwan District), April 1986, No. 200* (June 20, 1986).

Table 5-X

PRICE RATIO OF SELECTED COMMODITIES EXPORTED/REEXPORTED FROM HONG KONG TO MAINLAND CHINA, 1981

(Price Ratio for Taiwan Products = 1.00)

Commodity	Country/Area of Origin		
	South Korea	Hong Kong	Japan
Plywood	1.40	2.17	—
Woolen Yarn	0.99	0.90	1.12
Nylon Grey Yarn	1.03	1.45	1.04
Terylene Grey Yarn	1.40	1.03	—
Orlon Grey Yarn	0.76	1.09	1.15
Orlon Yarn, Other than Grey	0.90	1.12	1.16
Nylon Woven Fabric	0.62	0.79	1.29
Terylene Woven Fabric	0.76	0.82	1.06
Polyester Knitted Fabric	0.10	1.26	0.95
Sewing Machine (Household)	—	—	1.18
Television Receiver (Monochrome)	1.23	1.41	1.67
Television Picture Tube (Cathode Ray)	0.98	—	1.01
Bicycle	—	0.93	—

Note: The extent of the price advantage or disadvantage of Taiwan products over those of their competitors is indicated by the ratios of the unit values of selected commodities. If the ratio exceeds 1, it implies that the Taiwan commodity enjoyed a price advantage; if the ratio is under 1, then it implies Taiwan suffered from a price disadvanatage.

Source: Teh-pei Yu, "An Analysis of Economic Ties Linking Hong Kong, PRC and ROC—with Special Reference to Trade," *Issues and Studies*, Vol. 22, No. 6 (June 1986), p. 158.

Table 5-IX
TAIWAN'S LEADING IMPORT MARKETS, 1977-85
(Millions of NT Dollars)

1977		1979		1981		1983		1985	
Country	Amount	Country	Amount	Country	Amount	Country	Amount	Country	Amount
Japan	100,566	Japan	164,655	Japan	217,846	Japan	244,175	Japan	221,340
USA	74,724	USA	122,046	USA	174,866	USA	186,413	USA	189,225
Kuwait	25,511	Kuwait	41,669	S. Arabia	65,909	S. Arabia	77,224	S. Arabia	54,322
S. Arabia	18,617	S. Arabia	31,183	Kuwait	49,737	Kuwait	45,439	W. Germany,	33,788
Indonesia	11,934	W. Germany	22,947	W. Germany	23,760	W. Germany	27,750	Australia	31,981
W. Germany	10,537	Australia	16,377	Australia	21,802	Australia	27,377	Kuwait	26,708
Australia	8,237	Indonesia	16,312	Malaysia	18,350	Malaysia	19,802	Malaysia	19,182
Hong Kong	7,621	Malaysia	11,867	Indonesia	17,128	Canada	14,500	Indonesia	16,509
U.K.	6,755	U.K.	10,691	Hong Kong	11,356	France	13,947	Canada	14,743
Malaysia	5,564	S. Africa	7,753	U.K.	11,155	Indonesia	18,823	Hong Kong	12,743
Total	323,839	Total	523,928	Total	778,633	Total	813,904	Total	810,847

Source: Directorate-General of Budget, Accounting, and Statistics, Executive Yuan, Republic of China, *Statistical Yearbook of the Republic of China 1985*; and Department of Statistics, Ministry of Finance, Republic of China, *Monthly Statistics of Exports and Imports, The Republic of China (Taiwan District) April 1986, No. 200* (June 20, 1986).

Table 5-XI
MAJOR TAIWAN EXPORTS TO MAINLAND CHINA VIA HONG KONG, 1978-1983
(Thousands of HK Dollars)

Item (SITC Code)	1978	1979	1980	1981	1982	1983
Textile fibers (other than wool tops) & their wastes (not manufactured into yarn or fabric) (SITC 26)	—	—	66,214.5 (5.5%)	38,630.5 (1.77%)	3,309.4 (1.06%)	10,880.3 (0.89%)
Cork & wood manufactures (excluding furniture) (SITC 63)	21.9 (50.7%)	2,329.6 (2.2%)	37,257.3 (3.1%)	65,318.8 (3.0%)	14,364.2 (1.1%)	27,862.8 (2.3%)
Textile yarn, fabrics, made-up articles, n.e.s. and related products (SITC 65)	69.4 (28.9%)	82,512.0 (77.3%)	696,158.7 (57.8%)	1,443,991.3 (64.2%)	885,995.0 (70.1%)	678,257.7 (55.3%)
Non-metallic mineral manufactures, n.e.s. (SITC 66)	—	13.6 (0.0%)	115.9 (0.0%)	47.7 (0.0%)	3,219.8 (0.2%)	40,396.1 (3.3%)
Iron and steel (SITC 67)	—	—	8.5 (10.0%)	471.8 (0.0%)	10,207.9 (0.8%)	10,565.7 (0.9%)
Metalworking machinery (SITC 73)—	—	54.3 (0.1%)	5,874.9 (0.5%)	87,012.5 (4.0%)	32,992.9 (2.6%)	206.2 (0.0%)
Telecommunications and sound reproducing apparatus and equipment (SITC 76)-	—	2,642.2 (2.0%)	92,979.7 (7.3%)	90,882.7 (3.0%)	25,669.4 (0.7%)	12,591.7 (2.0%)

Table 5-XI (Continued)
MAJOR TAIWAN EXPORTS TO MAINLAND CHINA VIA HONG KONG, 1978-1983
(Thousands of HK Dollars)

Item (SITC Code)	1978	1979	1980	1981	1982	1983
Electrical machinery, apparatus and appliances, n.e.s., & electrical parts thereof (incl. non-eletrical counterparts, n.e.s. of eletrical household type equipment) (SITC 77)	—	10.8 (0.0%)	42,881.9 (3.6%)	10,080.5 (0.5%)	46.0 (0.0%)	156.9 (2.0%)
Road Vehicles (including air cushion vehicles) (SITC 78)	—	5.4 (0.0%)	8,796.1 (0.6%)	42,306.8 (2.0%)	10,741.0 (0.8%)	27,864.8 (2.3%)
Photographic apparatus, equipment and supplies and optical goods, n.e.s.; watches and clocks (SITC 88)	—	—	4,120.7 (0.3%)	13,502.7 (0.7%)	544.6 (0.0%)	132.7 (0.0%)
Miscellaneous manufactured articles, n.e.s. (SITC 89)	—	108.8 (0.1%)	16,442.8 (1.4%)	21,007.9 (1.0%)	8,364.6 (0.7%)	120,406.7 (10.0%)

Note: The percentage figures do not add up to 100 due to the fact that only major commodities are considered here.

Source: Teh-pei Yu, "An Analysis of Economic Ties Linking Hong Kong, PRC and ROC—with Special Reference to Trade," *Issues and Studies*, Vol. 22, No. 6 (June 1986), p. 161.

Table 5-XII
MAJOR MAINLAND CHINA EXPORTS TO TAIWAN VIA HONG KONG, 1978-1983
(Thousands of HK Dollars)

Item (SITC Code)	1978	1979	1980	1981	1982	1983
Fish, crustaceans and mulluscs, & preparations thereof (SITC 03)	281.6 (0.13%)	163.3 (0.06%)	7,234.9 (1.85%)	12,552.3 (2.94%)	14,645.6 (2.68%)	40,698.9 (5.83%)
Oil seeds and oleaginous fruit (SITC 22)	—	—	—	—	198.2 (0.03%)	17,322.1 (2.48%)
Textile fibers (other than wool tops) and their wastes (not manufactured into yarn or wool)	2,850.4 (1.30%)	4,146.9 (1.48%)	12,621.3 (3.23%)	28,653.4 (6.67%)	3,733.01 (0.68%)	28,393.5 (4.07%)
Crude fertilizers & crude minerals (excl. coal, petroleum & precious stones) (SITC 27)	1,220.2 (0.56%)	6,555.3 (2.35%)	13,583.6 (3.48%)	17,262.8 (4.05%)	18,670.5 (3.42%)	23,680.6 (3.39%)
Crude animal & vegetable materials, n.e.s., (SITC 29)	198,834.4 (90.83%)	230,376.9 (82.52%)	285,763.6 (73.18%)	286,138.8 (67.08%)	383,770.2 (70.28%)	394,268.3 (56.46%)
Medicinal & pharmaceuticals (SITC 54)	1,982.02 (0.88%)	687.3 (0.25%)	5,727.1 (1.47%)	9,016.7 (2.11%)	13,953.5 (2.56%)	22,971.1 (3.29%)
Textile yarn, fabrics, made-up articles, n.e.s. and related products (SITC 65)	83.3 (0.04%)	—	93.4 (0.02%)	977.5 (0.23%)	14,870.5 (2.72%)	26,111.6 (3.76%)

Note: The percentage figures do not add up to 100 due to the fact that only major commodities are considered here.

Source: Teh-pei Yu, "An Analysis of Economic Ties Linking Hong Kong, PRC and ROC—with Special Reference to Trade," *Issues and Studies*, Vol. 22, No. 6 (June 1986), p. 161.

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PERSPECTIVES ON U.S. — TAIWAN TRADE TENSIONS

Jimmy W. Wheeler and Perry L. Wood

In recent years, many countries — including Taiwan — have improved their bilateral trade balances with the United States and the overall U.S. trade balance has deteriorated markedly. America's trading partners are often blamed for the worsening U.S. trade deficit. Thus, many of America's trading partners have been criticized within the United States for following "unfair" trade and economic policies. For their part, America's trade partners have occasionally responded hotly to such charges and to American pressures to change their policies. This book examines the bilateral economic relationship between the United States and the Republic of China (Taiwan) and compares it with the United States' economic relations with Japan and South Korea. In the process, it attempts to move beyond pointless recriminations in order to throw some light on the real causes of U.S.-Taiwan trade tensions and suggest concrete actions that could be taken to reduce them.

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